

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: P453123

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

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P453123  
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-SA4A-827-U-AFL  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13429 lumens  
Efficiency: N/A  
Efficacy: 111.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B2 - U0 - G2

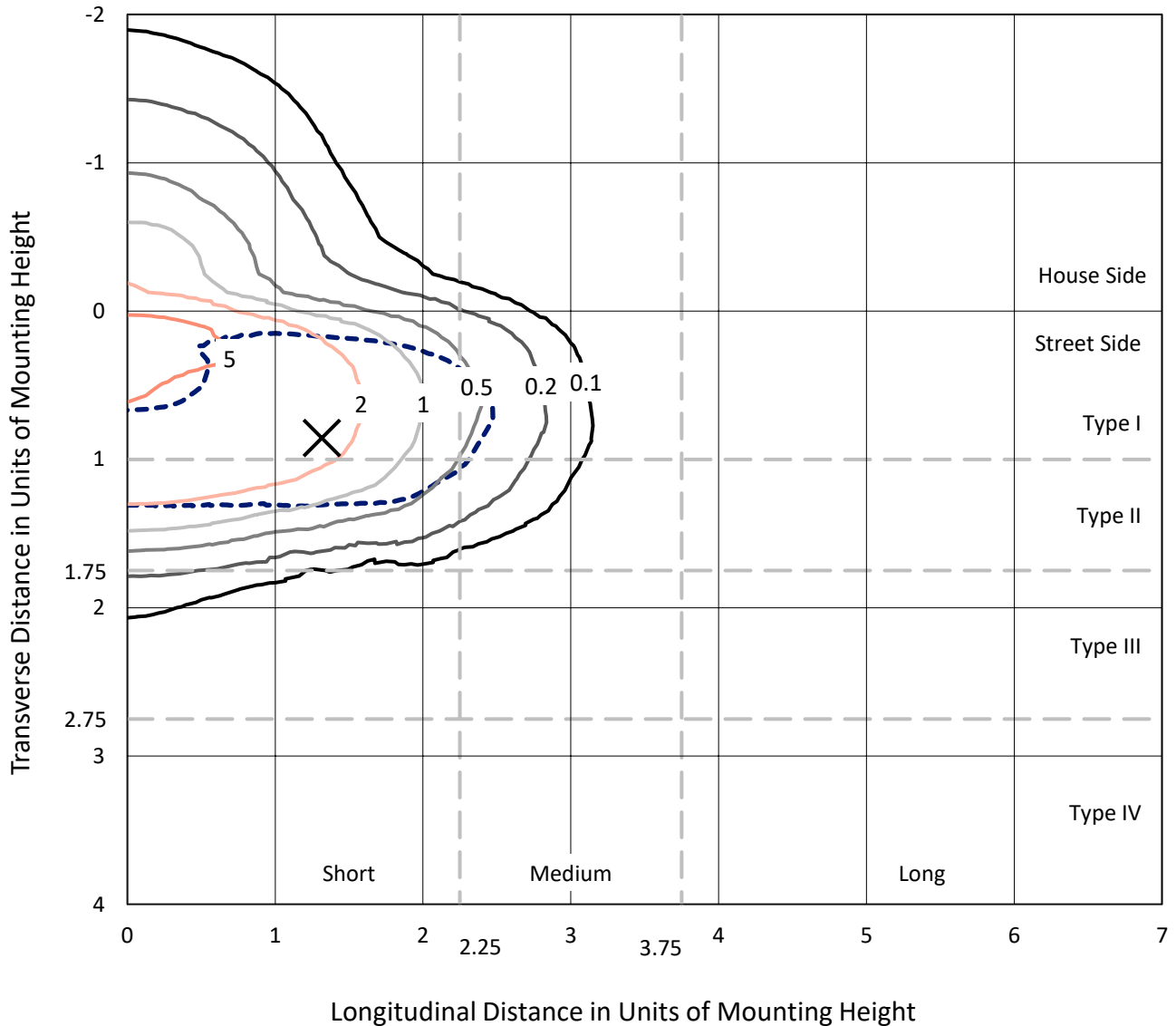
Input Watts (W): 121  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

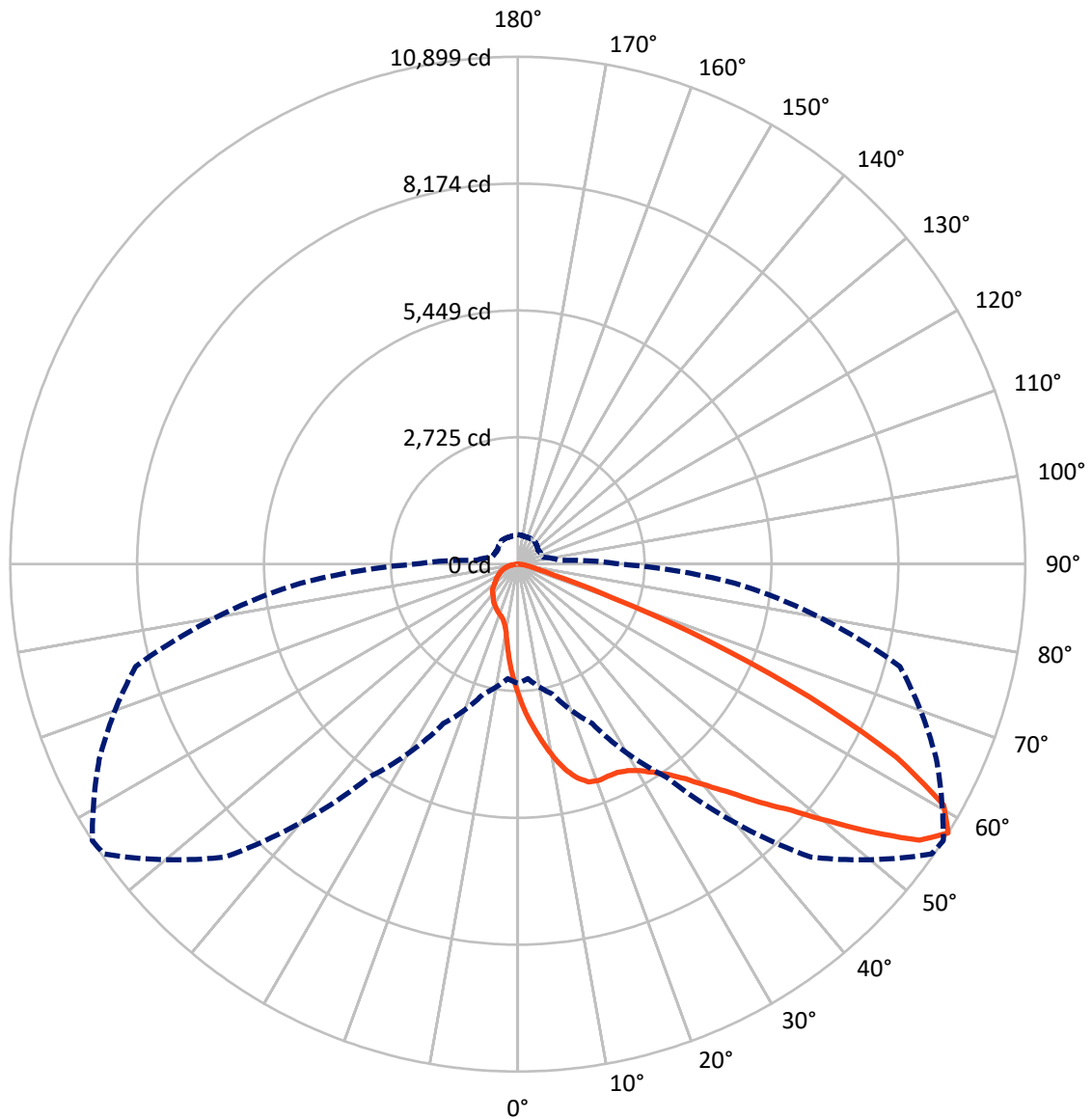
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.9 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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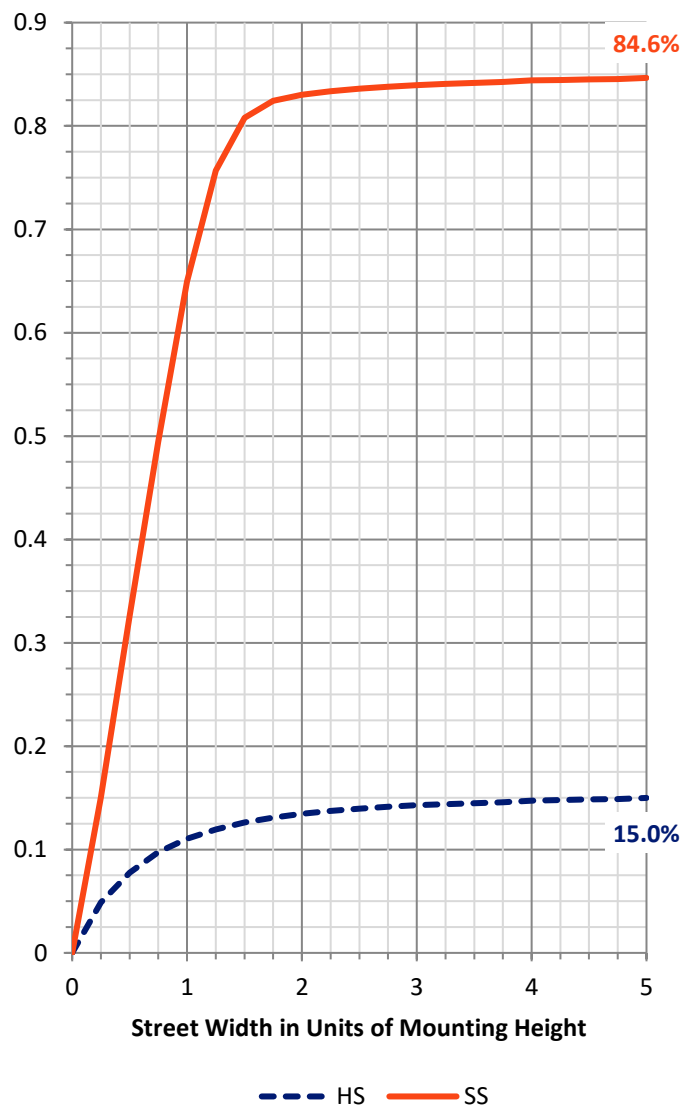
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2042.2	0.0	2042.2
	% Fixture	15.2	0.0	15.2
<b>Street Side</b>	Lumens	11386.8	0.0	11386.8
	% Fixture	84.8	0.0	84.8
<b>Total</b>	Lumens	13429.0	0.0	13429.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	271.2	2.0
10°-20°	799.1	6.0
20°-30°	1326.9	9.9
30°-40°	1998.7	14.9
40°-50°	3000.9	22.3
50°-60°	3363.6	25.0
60°-70°	1968.6	14.7
70°-80°	582.3	4.3
80°-90°	117.7	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°	13429.0	100.0
0°-180°	13429.0	100.0

**Coefficient of Utilization**



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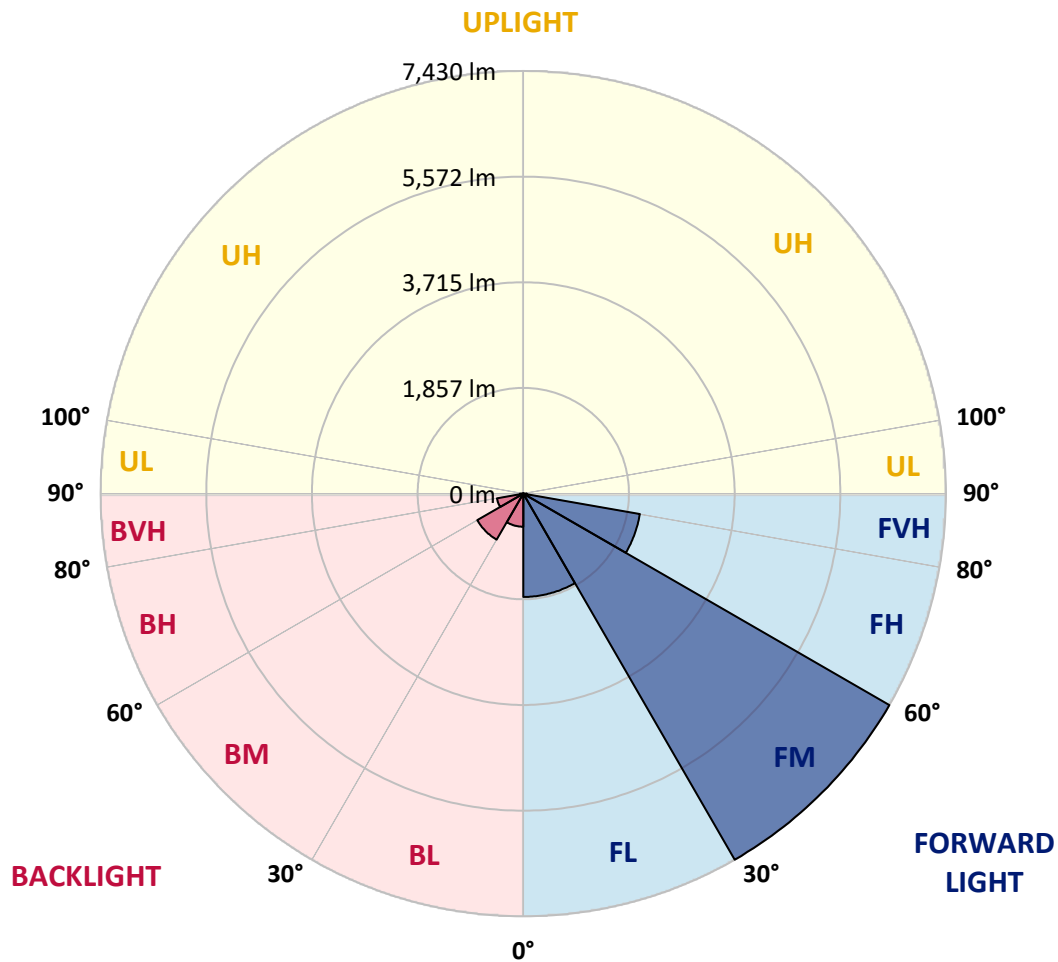
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1815.3	13.5			
FM (30°-60°)	7429.5	55.3			
FH (60°-80°)	2081.0	15.5			G2/5000
FVH (80°-90°)	61.1	0.5			G1/100
BL (0°-30°)	581.9	4.3	B2/1000		
BM (30°-60°)	933.8	7.0	B1/1000		
BH (60°-80°)	469.9	3.5	B1/500		G1/500
BVH (80°-90°)	56.6	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°	2821.3	2821.3	2821.3	2821.3	2821.3	2821.3	2821.3	2821.3	2821.3	2821.3	2821.3
2.5°	3505.6	3467.4	3437.3	3410.8	3376.3	3282.9	3189.6	3188.1	3113.8	2999.2	2881.6
5°	4076.8	4025.4	4032.0	3949.6	3867.3	3732.1	3534.3	3524.0	3366.0	3151.3	2933.0
7.5°	4448.8	4449.5	4428.9	4381.9	4292.9	4139.3	3915.1	3864.4	3644.6	3318.9	2991.8
10°	4429.7	4449.5	4484.1	4524.5	4551.7	4476.0	4271.6	4209.9	3923.9	3521.8	3057.2
12.5°	4175.3	4206.2	4255.4	4356.9	4520.8	4645.8	4575.9	4526.0	4247.4	3724.0	3129.3
15°	4016.5	4034.9	4062.1	4130.5	4306.9	4606.1	4786.9	4760.4	4552.4	3952.6	3210.1
17.5°	3968.0	3986.4	3995.2	4037.1	4162.8	4469.4	4870.0	4917.0	4822.9	4162.8	3291.7
20°	4016.5	4025.4	4025.4	4050.4	4148.9	4389.2	4866.3	4961.1	5044.9	4415.0	3368.2
22.5°	4143.7	4147.4	4142.2	4151.1	4224.6	4411.3	4831.8	4949.4	5224.3	4628.9	3427.7
25°	4350.3	4356.1	4322.3	4301.8	4355.4	4508.3	4850.9	4958.9	5364.7	4833.2	3467.4
27.5°	4584.8	4592.1	4550.9	4503.2	4528.2	4628.1	4925.8	5022.9	5469.8	5034.6	3492.4
30°	4872.2	4875.1	4806.0	4748.7	4732.5	4806.8	5053.8	5144.2	5600.7	5272.1	3529.9
32.5°	5166.2	5188.3	5099.3	5018.5	4991.3	5014.1	5242.7	5330.1	5756.5	5527.1	3590.2
35°	5566.1	5569.8	5463.2	5364.7	5275.0	5304.4	5484.5	5547.7	5971.9	5821.9	3675.5
37.5°	6065.2	6099.0	5952.0	5768.3	5658.0	5615.4	5777.1	5846.2	6274.0	6183.6	3804.1
40°	6619.5	6632.0	6506.3	6391.6	6190.2	6066.7	6178.4	6253.4	6646.7	6615.1	3953.3
42.5°	6967.9	6995.1	7004.7	6992.9	6841.5	6634.2	6676.8	6712.1	7087.7	7020.1	4106.2
45°	7085.5	7126.0	7262.7	7552.3	7568.5	7364.1	7264.9	7298.7	7568.5	7428.8	4252.5
47.5°	6890.7	6959.8	7212.0	7805.9	8250.7	8266.1	7966.9	7892.7	8006.6	7767.7	4358.4
50°	6387.2	6401.9	6787.8	7647.9	8570.4	9128.4	8818.9	8680.7	8422.7	8018.4	4431.1
52.5°	5608.0	5624.9	5948.4	6913.5	8373.4	9731.1	9815.7	9568.7	8845.3	8213.2	4478.9
55°	4162.8	4260.6	4616.4	5549.2	7439.9	9674.5	10608.1	10467.7	9356.2	8367.5	4553.9
57.5°	2559.6	2469.9	2891.8	3775.4	5595.5	8896.8	10852.9	10898.5	9918.6	8496.9	4679.6
60°	1177.6	1195.3	1369.5	1947.3	3410.8	6959.8	10222.2	10510.3	10229.5	8492.5	4711.2
62.5°	811.5	795.4	751.3	854.9	1555.5	4401.7	8634.4	9122.5	9606.2	8228.6	4585.5
65°	725.5	709.4	624.1	595.4	714.5	1918.6	6276.9	6892.9	8088.2	7562.6	4272.3
67.5°	677.8	655.7	567.5	511.6	510.2	763.8	3701.2	4442.9	5999.1	6393.8	3701.9
70°	627.8	610.1	522.6	460.9	434.4	480.0	1626.8	2129.6	3895.2	4607.6	2883.8
72.5°	577.8	557.2	478.5	412.4	377.8	359.5	623.4	810.8	2200.9	2762.5	1767.9
75°	505.0	494.7	427.8	373.4	335.9	290.4	395.5	451.3	1052.7	1268.8	887.3
77.5°	441.8	430.8	380.0	326.4	299.2	236.0	280.8	306.5	444.0	514.6	400.6
80°	323.4	334.5	320.5	288.2	266.8	185.2	188.9	210.2	263.9	291.8	244.8
82.5°	205.1	225.7	247.0	222.0	202.2	146.3	130.8	138.9	180.1	191.1	108.8
85°	86.0	87.5	143.3	135.3	115.4	86.7	78.7	83.1	96.3	100.7	50.7
87.5°	33.1	32.3	50.7	47.0	36.0	25.0	25.0	27.9	38.2	35.3	16.2
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°	2821.3	2821.3	2821.3	2821.3	2821.3	2821.3	2821.3	2821.3	2821.3	2821.3	2821.3
2.5°	2830.8	2778.6	2675.0	2546.4	2452.3	2346.4	2253.1	2186.2	2161.2	2149.4	2127.4
5°	2828.6	2725.7	2511.1	2286.1	2105.3	1920.1	1763.5	1662.0	1653.2	1585.6	1579.0
7.5°	2829.4	2672.1	2330.2	1999.4	1723.8	1534.1	1404.8	1370.9	1330.5	1320.2	1325.4
10°	2831.6	2603.7	2136.2	1715.7	1448.9	1324.6	1276.1	1262.9	1264.4	1268.8	1269.5
12.5°	2834.5	2537.5	1934.8	1500.3	1294.5	1243.0	1237.9	1249.7	1262.2	1271.7	1273.9
15°	2838.2	2461.8	1738.5	1326.8	1217.3	1212.9	1229.8	1249.7	1267.3	1281.3	1283.5
17.5°	2833.8	2373.6	1573.8	1220.3	1174.7	1196.0	1223.9	1248.9	1265.1	1278.3	1279.8
20°	2823.5	2275.1	1415.1	1145.3	1148.2	1182.8	1212.9	1236.4	1254.1	1260.7	1265.8
22.5°	2783.8	2157.5	1276.9	1087.2	1116.6	1164.4	1200.4	1214.4	1194.5	1180.6	1184.2
25°	2716.2	2004.6	1148.2	1040.2	1087.9	1138.7	1175.4	1141.6	1125.4	1119.5	1122.5
27.5°	2631.6	1837.0	1051.2	990.9	1051.2	1110.0	1099.7	1093.8	1086.5	1076.9	1079.1
30°	2540.5	1673.1	968.8	952.7	1011.5	1045.3	1049.7	1059.3	1051.2	1036.5	1042.4
32.5°	2455.9	1518.7	906.4	920.3	983.6	978.4	1011.5	1022.5	985.0	935.8	938.0
35°	2383.9	1375.4	859.3	888.7	935.8	938.0	971.1	932.8	892.4	868.9	870.3
37.5°	2329.5	1263.6	828.4	861.5	874.8	902.7	885.0	865.2	860.1	843.9	844.6
40°	2297.2	1165.9	808.6	840.2	838.0	857.1	800.5	820.4	827.7	822.6	823.3
42.5°	2264.8	1096.8	788.0	810.8	810.1	772.6	760.1	777.0	796.1	798.3	796.8
45°	2239.1	1043.1	766.7	766.0	780.7	721.9	718.2	728.5	755.7	768.9	768.2
47.5°	2210.4	998.3	734.4	713.8	718.2	690.3	684.4	688.8	721.9	743.2	749.1
50°	2174.4	953.4	693.9	666.0	647.6	660.8	662.3	663.1	696.1	720.4	725.5
52.5°	2145.7	919.6	647.6	627.0	605.0	634.4	645.4	646.9	666.7	686.6	690.3
55°	2162.6	900.5	602.0	587.3	567.5	607.2	628.5	631.4	635.9	650.6	652.8
57.5°	2213.4	904.9	565.3	546.2	531.5	574.8	610.9	613.1	610.1	627.8	630.7
60°	2228.8	902.7	538.1	500.6	491.8	540.3	585.1	589.5	588.8	614.5	619.7
62.5°	2164.1	874.8	510.9	462.4	456.5	505.0	549.1	566.8	570.4	607.2	613.8
65°	2011.9	817.4	474.9	421.9	421.9	467.5	514.6	538.8	549.1	598.4	605.7
67.5°	1811.3	749.8	438.1	387.4	385.9	431.5	477.8	502.8	519.0	585.9	590.3
70°	1503.3	658.6	392.5	349.9	349.9	391.1	433.0	463.1	486.6	562.3	562.3
72.5°	1029.9	547.6	337.4	307.3	308.0	346.2	388.9	422.7	450.6	515.3	516.8
75°	651.3	427.8	277.1	261.7	264.6	300.7	344.8	380.0	435.9	509.4	511.6
77.5°	346.2	300.7	220.5	216.9	220.5	253.6	302.9	351.4	437.4	441.8	434.4
80°	224.2	213.2	174.2	166.9	168.3	204.4	269.8	333.7	351.4	355.8	339.6
82.5°	122.0	135.3	123.5	116.1	116.1	159.5	230.1	265.4	252.1	209.5	199.9
85°	52.2	63.2	64.0	55.9	53.7	98.5	154.4	144.8	134.5	128.6	127.2
87.5°	14.7	20.6	20.6	15.4	11.8	27.2	30.9	8.8	0.0	0.7	1.5
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)