

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: P651830

Luminaire Tested: **GALN-SA4A-840-U-AFL**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P651830
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-840-U-AFL
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 4000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15363.4 lumens
Efficiency: N/A
Efficacy: 127.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

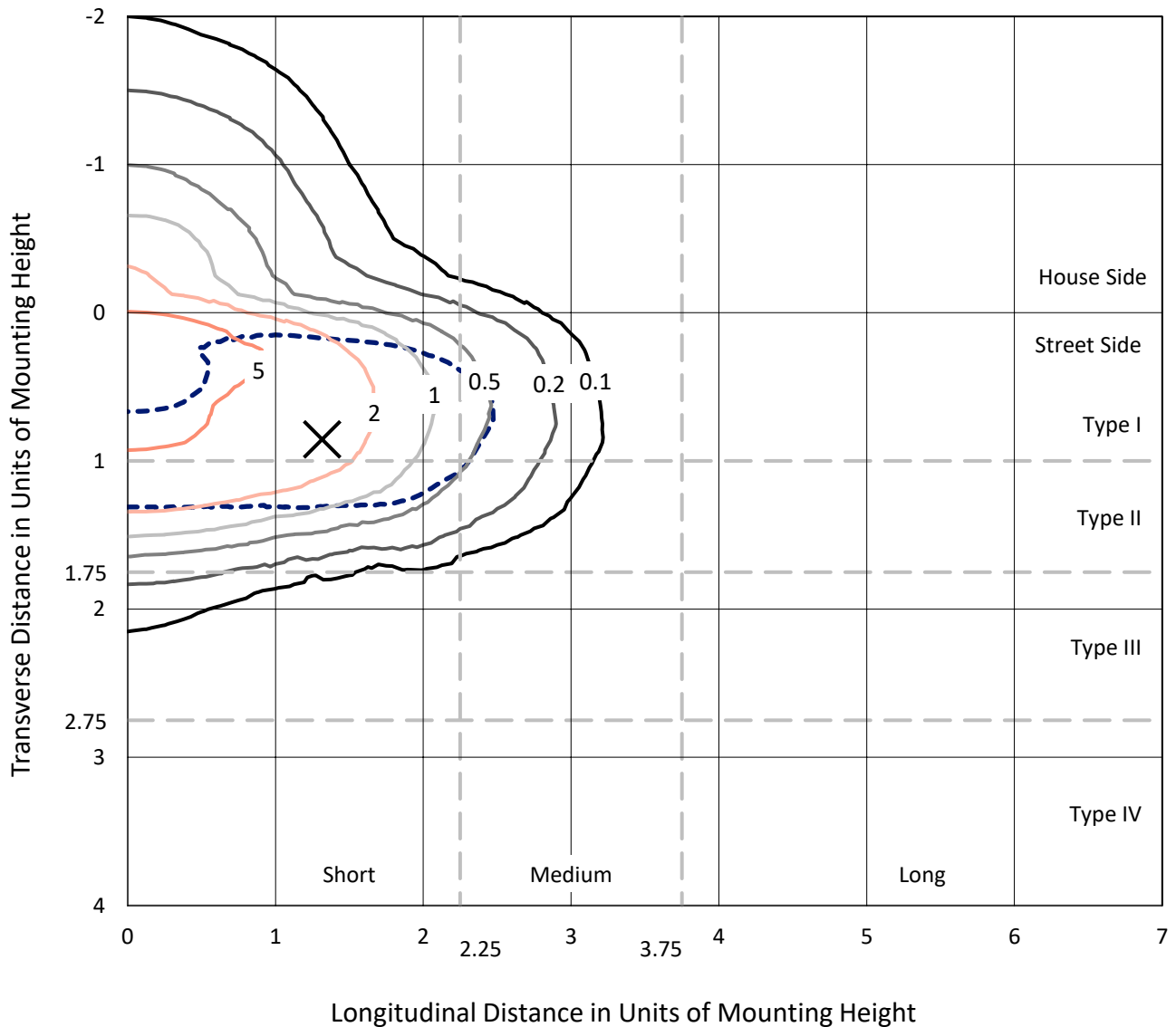
Input Watts (W): 121
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

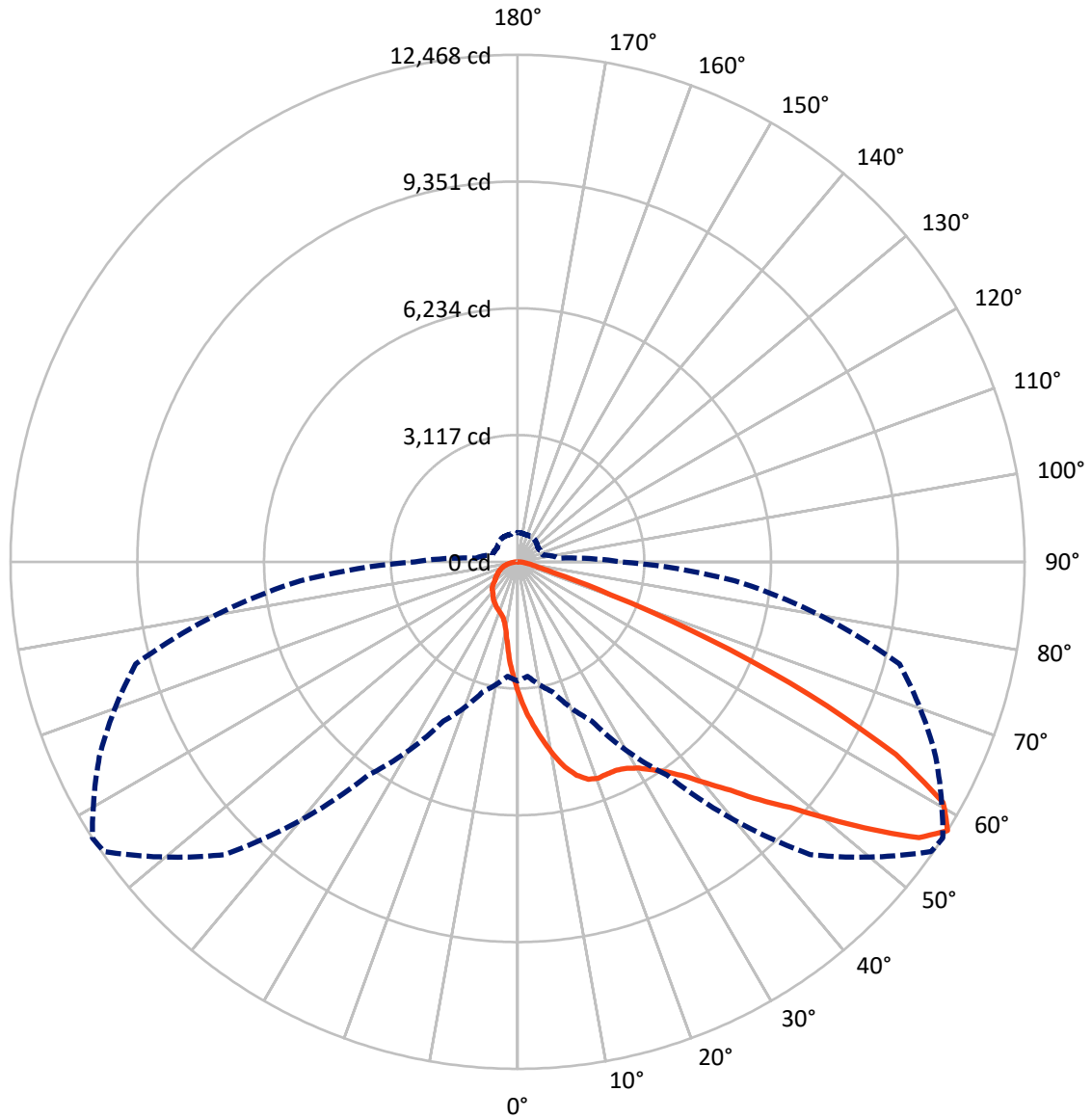
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.9 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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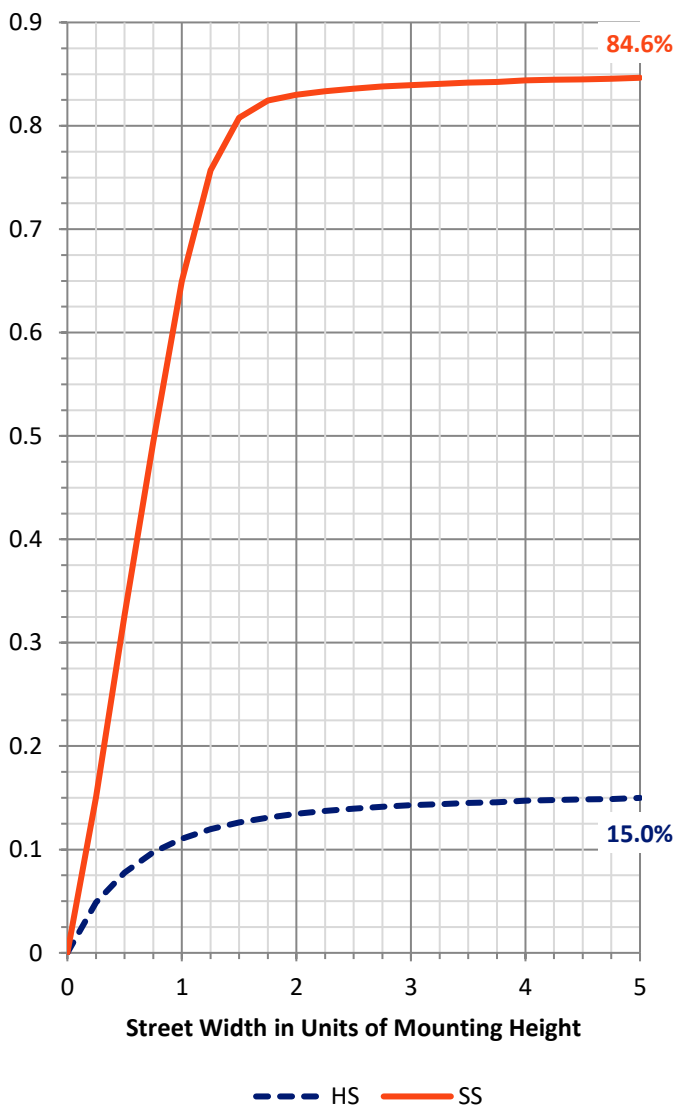
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2336.4	0.0	2336.4
	% Fixture	15.2	0.0	15.2
Street Side	Lumens	13027.1	0.0	13027.1
	% Fixture	84.8	0.0	84.8
Total	Lumens	15363.4	0.0	15363.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	310.2	2.0
10°-20°	914.2	6.0
20°-30°	1518.1	9.9
30°-40°	2286.6	14.9
40°-50°	3433.2	22.3
50°-60°	3848.2	25.0
60°-70°	2252.1	14.7
70°-80°	666.2	4.3
80°-90°	134.7	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°	15363.4	100.0
0°-180°	15363.4	100.0

Coefficient of Utilization



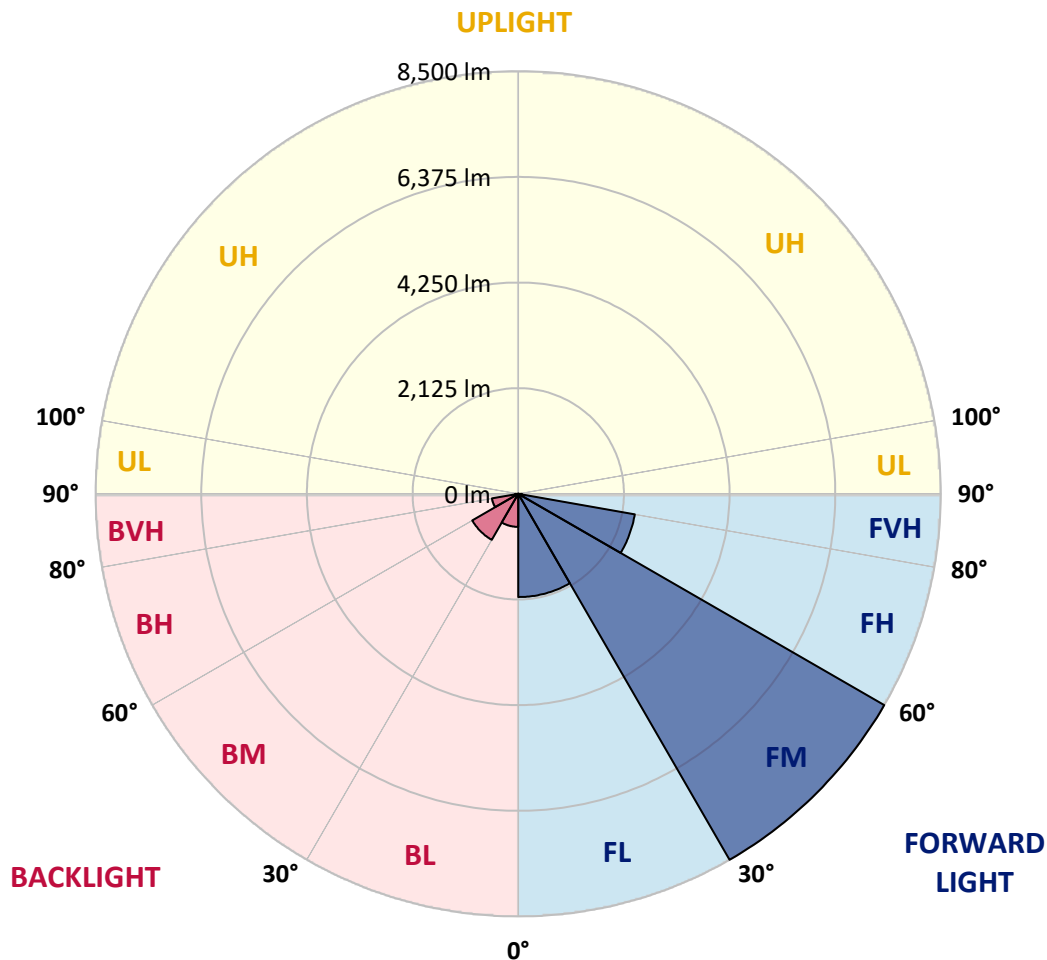
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2076.8	13.5			
FM (30°-60°)	8499.7	55.3			
FH (60°-80°)	2380.7	15.5			G2/5000
FVH (80°-90°)	69.9	0.5			G1/100
BL (0°-30°)	665.7	4.3	B2/1000		
BM (30°-60°)	1068.3	7.0	B2/2500		
BH (60°-80°)	537.6	3.5	B2/1000		G2/1000
BVH (80°-90°)	64.8	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°	3227.7	3227.7	3227.7	3227.7	3227.7	3227.7	3227.7	3227.7	3227.7	3227.7	3227.7
2.5°	4010.6	3966.9	3932.4	3902.2	3862.6	3755.8	3649.0	3647.3	3562.4	3431.2	3296.6
5°	4664.1	4605.2	4612.8	4518.6	4424.4	4269.7	4043.4	4031.7	3850.9	3605.3	3355.5
7.5°	5089.6	5090.4	5066.9	5013.0	4911.3	4735.5	4479.1	4421.1	4169.6	3797.0	3422.8
10°	5067.7	5090.4	5129.9	5176.2	5207.3	5120.7	4886.9	4816.2	4489.2	4029.1	3497.6
12.5°	4776.7	4812.0	4868.4	4984.4	5172.0	5315.0	5235.1	5177.9	4859.1	4260.4	3580.1
15°	4595.1	4616.2	4647.3	4725.5	4927.3	5269.5	5476.4	5446.1	5208.1	4522.0	3672.6
17.5°	4539.6	4560.7	4570.8	4618.7	4762.4	5113.1	5571.5	5625.3	5517.6	4762.4	3765.9
20°	4595.1	4605.2	4605.2	4633.8	4746.4	5021.4	5567.3	5675.7	5771.6	5050.9	3853.4
22.5°	4740.5	4744.8	4738.9	4749.0	4833.1	5046.7	5527.7	5662.3	5976.8	5295.6	3921.5
25°	4976.9	4983.6	4944.9	4921.4	4982.8	5157.7	5549.6	5673.2	6137.4	5529.4	3966.9
27.5°	5245.1	5253.6	5206.5	5151.8	5180.4	5294.8	5635.4	5746.4	6257.7	5759.8	3995.5
30°	5574.0	5577.3	5498.3	5432.7	5414.2	5499.1	5781.7	5885.1	6407.4	6031.5	4038.4
32.5°	5910.4	5935.6	5833.8	5741.3	5710.2	5736.3	5997.8	6097.9	6585.7	6323.3	4107.4
35°	6367.9	6372.1	6250.1	6137.4	6034.8	6068.5	6274.5	6346.9	6832.1	6660.6	4204.9
37.5°	6938.9	6977.6	6809.4	6599.2	6473.0	6424.2	6609.3	6688.3	7177.8	7074.3	4352.1
40°	7573.0	7587.3	7443.5	7312.3	7081.9	6940.6	7068.4	7154.2	7604.2	7568.0	4522.8
42.5°	7971.6	8002.7	8013.6	8000.2	7827.0	7589.9	7638.6	7679.0	8108.7	8031.3	4697.7
45°	8106.1	8152.4	8308.8	8640.2	8658.7	8424.9	8311.4	8350.0	8658.7	8498.9	4865.0
47.5°	7883.4	7962.3	8250.8	8930.3	9439.1	9456.8	9114.5	9029.6	9159.9	8886.6	4986.1
50°	7307.3	7324.1	7765.6	8749.5	9805.0	10443.3	10089.2	9931.1	9635.9	9173.4	5069.4
52.5°	6415.8	6435.2	6805.2	7909.4	9579.6	11132.8	11229.5	10947.0	10119.5	9396.2	5124.0
55°	4762.4	4874.3	5281.3	6348.5	8511.5	11068.1	12136.1	11975.5	10704.0	9572.9	5209.8
57.5°	2928.3	2825.7	3308.4	4319.3	6401.5	10178.4	12416.2	12468.3	11347.3	9720.9	5353.6
60°	1347.3	1367.5	1566.8	2227.7	3902.2	7962.3	11694.6	12024.3	11703.0	9715.8	5389.8
62.5°	928.5	910.0	859.5	978.1	1779.5	5035.7	9878.1	10436.6	10989.9	9413.9	5246.0
65°	830.1	811.6	714.0	681.2	817.5	2194.9	7181.1	7885.9	9253.3	8652.0	4887.7
67.5°	775.4	750.2	649.3	585.3	583.7	873.8	4234.4	5082.8	6863.2	7314.8	4235.2
70°	718.2	698.0	598.0	527.3	497.0	549.2	1861.0	2436.3	4456.4	5271.2	3299.2
72.5°	661.0	637.5	547.5	471.8	432.3	411.2	713.2	927.6	2517.9	3160.4	2022.5
75°	577.8	566.0	489.5	427.2	384.3	332.2	452.5	516.4	1204.3	1451.6	1015.1
77.5°	505.4	492.8	434.8	373.4	342.3	270.0	321.3	350.7	508.0	588.7	458.3
80°	370.0	382.7	366.7	329.7	305.3	211.9	216.1	240.5	301.9	333.9	280.1
82.5°	234.6	258.2	282.6	254.0	231.3	167.4	149.7	158.9	206.0	218.7	124.5
85°	98.4	100.1	164.0	154.7	132.0	99.2	90.0	95.0	110.2	115.2	58.0
87.5°	37.8	37.0	58.0	53.8	41.2	28.6	28.6	32.0	43.7	40.4	18.5
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°	3227.7	3227.7	3227.7	3227.7	3227.7	3227.7	3227.7	3227.7	3227.7	3227.7	3227.7
2.5°	3238.6	3178.9	3060.3	2913.1	2805.5	2684.4	2577.6	2501.0	2472.5	2459.0	2433.8
5°	3236.1	3118.3	2872.8	2615.4	2408.5	2196.6	2017.5	1901.4	1891.3	1814.0	1806.4
7.5°	3236.9	3057.0	2665.9	2287.4	1972.1	1755.1	1607.1	1568.5	1522.2	1510.4	1516.3
10°	3239.4	2978.7	2443.9	1962.8	1657.5	1515.5	1460.0	1444.8	1446.5	1451.6	1452.4
12.5°	3242.8	2903.0	2213.4	1716.4	1481.0	1422.1	1416.2	1429.7	1444.0	1454.9	1457.5
15°	3247.0	2816.4	1988.9	1518.0	1392.7	1387.6	1407.0	1429.7	1449.9	1465.9	1468.4
17.5°	3242.0	2715.5	1800.5	1396.1	1343.9	1368.3	1400.3	1428.9	1447.4	1462.5	1464.2
20°	3230.2	2602.8	1618.8	1310.3	1313.6	1353.2	1387.6	1414.6	1434.7	1442.3	1448.2
22.5°	3184.8	2468.3	1460.8	1243.8	1277.5	1332.1	1373.4	1389.3	1366.6	1350.6	1354.9
25°	3107.4	2293.3	1313.6	1190.0	1244.7	1302.7	1344.8	1306.1	1287.6	1280.8	1284.2
27.5°	3010.7	2101.6	1202.6	1133.7	1202.6	1269.9	1258.1	1251.4	1243.0	1232.1	1234.6
30°	2906.4	1914.0	1108.4	1089.9	1157.2	1195.9	1200.9	1211.9	1202.6	1185.8	1192.5
32.5°	2809.7	1737.4	1037.0	1052.9	1125.3	1119.4	1157.2	1169.8	1126.9	1070.6	1073.1
35°	2727.3	1573.5	983.1	1016.8	1070.6	1073.1	1111.0	1067.2	1021.0	994.1	995.7
37.5°	2665.0	1445.7	947.8	985.7	1000.8	1032.7	1012.6	989.9	984.0	965.5	966.3
40°	2628.0	1333.8	925.1	961.3	958.7	980.6	915.8	938.6	947.0	941.1	941.9
42.5°	2591.0	1254.8	901.6	927.6	926.8	883.9	869.6	888.9	910.8	913.3	911.6
45°	2561.6	1193.4	877.2	876.3	893.1	825.9	821.7	833.4	864.5	879.7	878.8
47.5°	2528.8	1142.1	840.2	816.6	821.7	789.7	783.0	788.0	825.9	850.3	857.0
50°	2487.6	1090.8	793.9	761.9	740.9	756.1	757.7	758.6	796.4	824.2	830.1
52.5°	2454.8	1052.1	740.9	717.4	692.1	725.8	738.4	740.1	762.8	785.5	789.7
55°	2474.1	1030.2	688.8	672.0	649.3	694.7	719.1	722.4	727.5	744.3	746.8
57.5°	2532.2	1035.3	646.7	624.9	608.0	657.7	698.9	701.4	698.0	718.2	721.6
60°	2549.8	1032.7	615.6	572.7	562.6	618.1	669.4	674.5	673.6	703.1	709.0
62.5°	2475.8	1000.8	584.5	529.0	522.3	577.8	628.2	648.4	652.6	694.7	702.2
65°	2301.7	935.2	543.3	482.7	482.7	534.9	588.7	616.5	628.2	684.6	693.0
67.5°	2072.1	857.8	501.2	443.2	441.5	493.7	546.6	575.2	593.7	670.3	675.3
70°	1719.8	753.5	449.1	400.3	400.3	447.4	495.3	529.8	556.7	643.4	643.4
72.5°	1178.2	626.5	386.0	351.5	352.4	396.1	444.9	483.6	515.5	589.5	591.2
75°	745.1	489.5	317.1	299.4	302.8	344.0	394.4	434.8	498.7	582.8	585.3
77.5°	396.1	344.0	252.3	248.1	252.3	290.1	346.5	402.0	500.4	505.4	497.0
80°	256.5	243.9	199.3	190.9	192.6	233.8	308.6	381.8	402.0	407.0	388.5
82.5°	139.6	154.7	141.3	132.9	132.9	182.5	263.2	303.6	288.5	239.7	228.8
85°	59.7	72.3	73.2	63.9	61.4	112.7	176.6	165.7	153.9	147.2	145.5
87.5°	16.8	23.5	23.5	17.7	13.5	31.1	35.3	10.1	0.0	0.8	1.7
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)