

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: P651827

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

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P651827
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-057-27)
Test Lab: INNOVATION CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA4A-840-U-AFL-GRSBK
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 4000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS WITH BLACK GLARE REDUCTION SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11349.3 lumens
Efficiency: N/A
Efficacy: 93.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G0

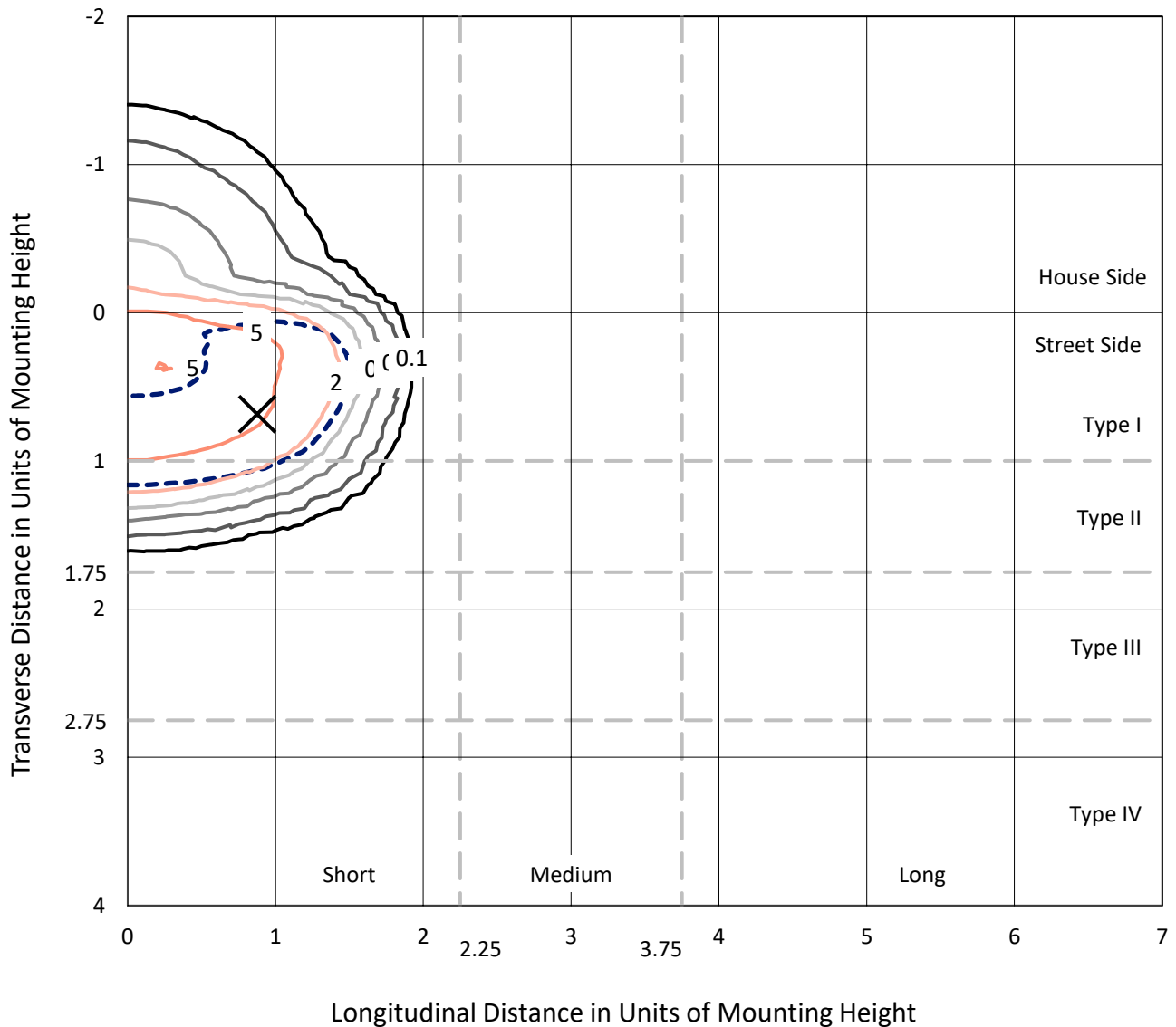
Input Watts (W): 121
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

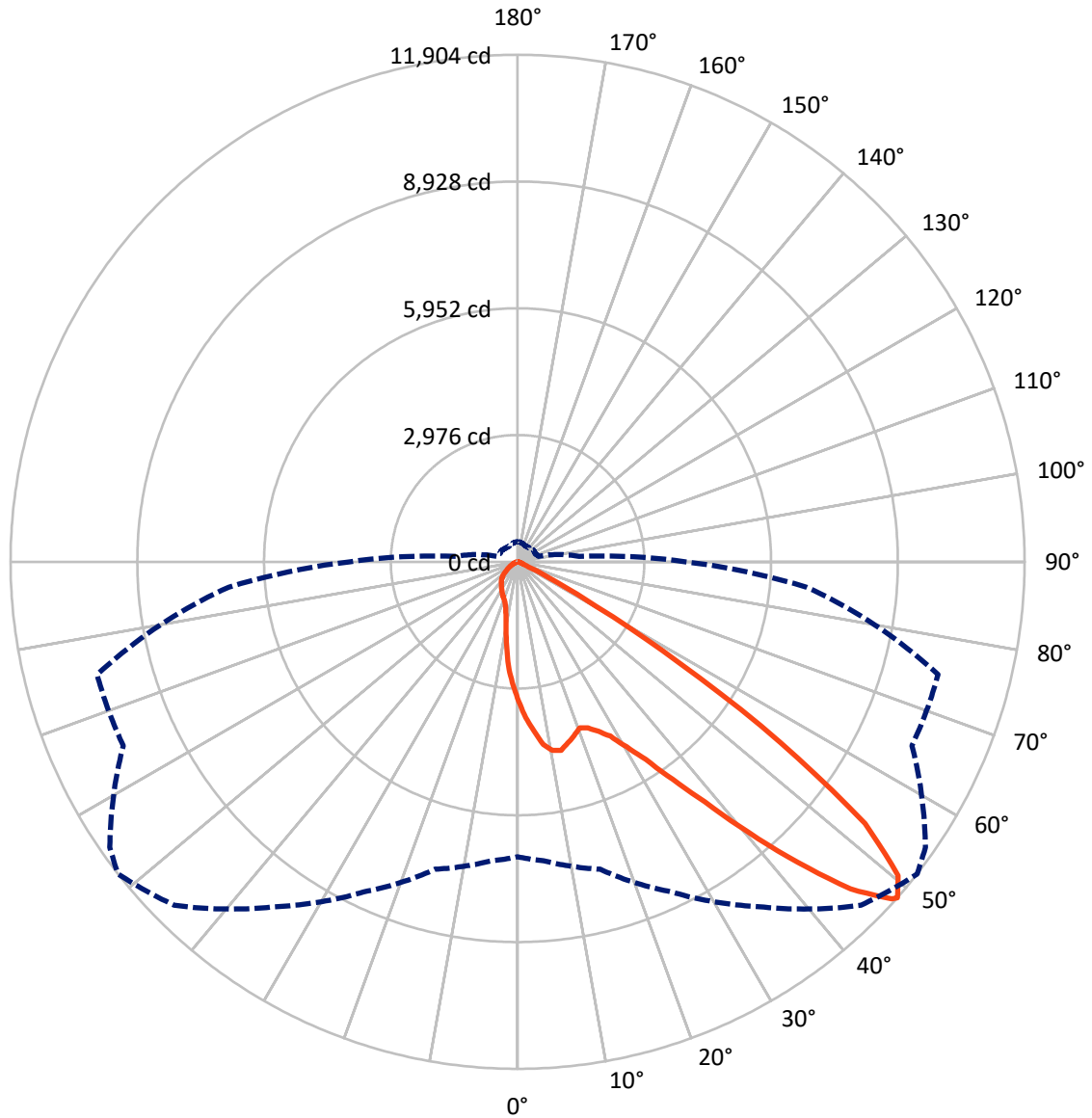
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.3 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 52-Deg Lateral - - - Horizontal Cone Through 48-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1381.9	0.0	1381.9
	% Fixture	12.2	0.0	12.2
Street Side	Lumens	9967.4	0.0	9967.4
	% Fixture	87.8	0.0	87.8
Total	Lumens	11349.3	0.0	11349.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	300.0	2.6
10°-20°	784.0	6.9
20°-30°	1338.6	11.8
30°-40°	2464.9	21.7
40°-50°	3828.0	33.7
50°-60°	2303.8	20.3
60°-70°	266.5	2.3
70°-80°	51.6	0.5
80°-90°	11.9	0.1
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°	11349.3	100.0
0°-180°	11349.3	100.0

Coefficient of Utilization

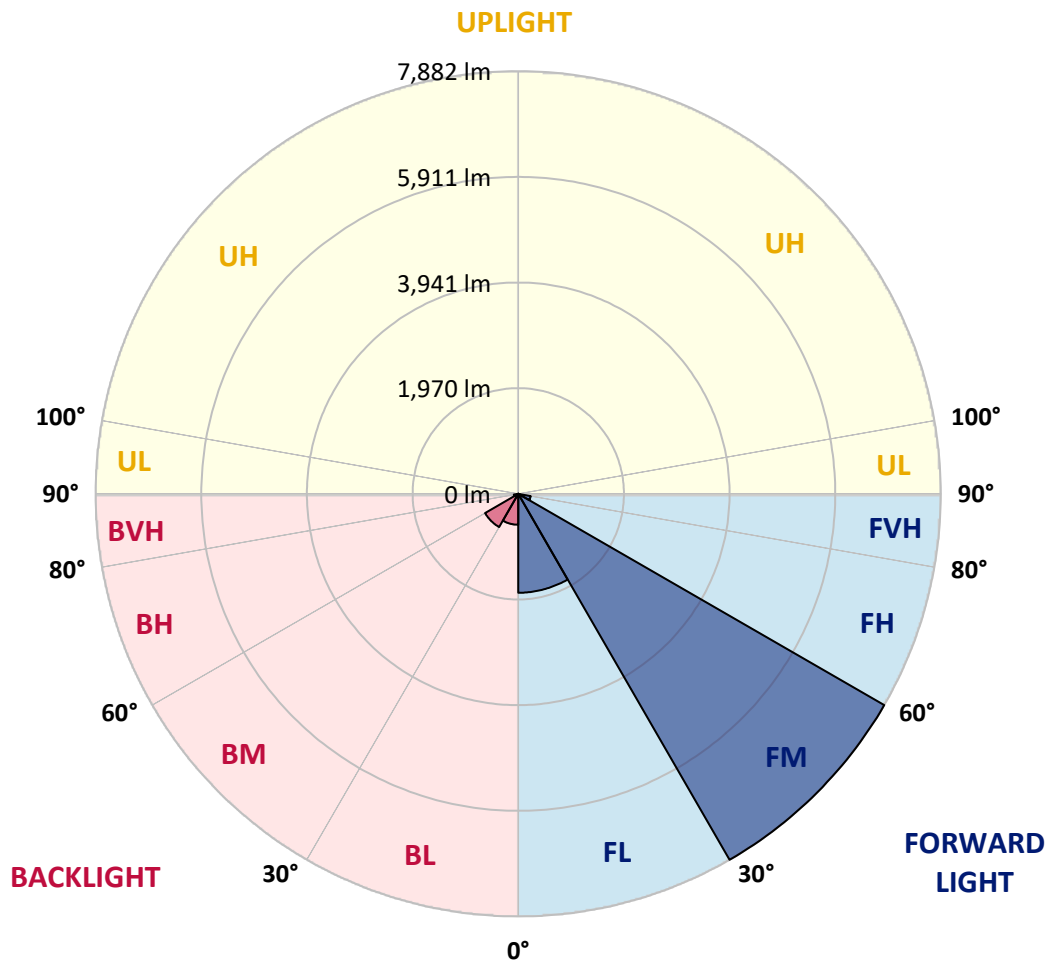


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1845.2	16.3			
FM	(30°-60°)	7881.9	69.4			
FH	(60°-80°)	234.6	2.1			G0/660
FVH	(80°-90°)	5.7	0.1			G0/10
BL	(0°-30°)	577.3	5.1	B2/1000		
BM	(30°-60°)	715.0	6.3	B1/1000		
BH	(60°-80°)	83.4	0.7	B0/110		G0/110
BVH	(80°-90°)	6.3	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G0
 Type II Short





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CATALOG NUMBER: GALN-SA4A-840-U-AFL-GRSBK

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	52°	55°	65°	75°	85°
0°	3277.5	3277.5	3277.5	3277.5	3277.5	3277.5	3277.5	3277.5	3277.5	3277.5	3277.5
2.5°	3972.4	3881.4	3889.6	3830.1	3795.3	3739.1	3663.0	3648.1	3565.3	3452.9	3338.7
5°	4329.7	4308.2	4336.4	4250.3	4253.6	4160.9	3982.3	3985.6	3795.3	3611.7	3434.6
7.5°	4352.8	4303.2	4331.4	4407.5	4452.2	4435.6	4334.7	4247.0	4066.7	3796.9	3538.9
10°	3898.0	3992.2	4022.0	4147.7	4326.4	4515.0	4503.5	4508.4	4357.8	4005.4	3628.2
12.5°	3625.0	3562.1	3663.0	3739.1	4008.8	4374.4	4541.5	4577.9	4589.5	4207.3	3717.6
15°	3500.8	3500.8	3517.4	3538.9	3734.1	4071.6	4412.5	4518.4	4768.1	4472.0	3858.2
17.5°	3578.6	3575.3	3598.5	3553.8	3626.6	3886.3	4293.3	4414.1	4968.4	4731.7	3969.0
20°	3815.2	3826.8	3811.9	3682.8	3687.8	3883.0	4160.9	4351.2	5104.0	4956.8	4116.3
22.5°	4144.4	4151.0	4066.7	3926.0	3884.7	3980.6	4237.0	4382.7	5213.2	5226.5	4160.9
25°	4524.9	4498.5	4481.9	4283.4	4157.7	4240.4	4409.1	4493.5	5281.1	5458.1	4288.3
27.5°	5052.7	4999.7	4898.8	4721.8	4629.2	4511.7	4632.5	4771.5	5474.6	5782.4	4427.4
30°	5832.0	5785.7	5588.8	5360.4	5117.2	5001.4	5039.5	5115.6	5823.7	6157.9	4611.0
32.5°	7005.0	6907.4	6622.8	6187.7	5856.8	5537.5	5527.6	5608.6	6136.4	6677.4	4829.4
35°	8297.1	8267.4	7848.8	7400.4	6760.1	6267.1	6275.4	6318.3	6735.3	7359.0	5115.6
37.5°	9155.8	9319.5	9053.2	8571.7	8034.1	7329.2	7150.6	7165.5	7557.6	8166.4	5631.8
40°	9819.3	9680.2	9711.7	9599.2	9231.9	8752.1	8356.7	8278.9	8508.9	9059.8	6144.7
42.5°	9529.7	9536.4	9729.9	9996.3	10087.3	10052.5	9648.8	9501.5	9322.9	9791.1	6632.7
45°	8712.4	8882.8	9134.3	9839.1	10457.8	11038.5	10959.2	10714.3	9885.4	10370.2	6914.0
47.5°	7408.7	7402.1	7814.0	8730.6	10105.5	11465.4	11826.1	11654.0	10284.2	10305.6	6856.1
48°	6927.2	7046.3	7471.5	8550.3	9882.1	11402.5	11903.9	11687.1	10216.3	10219.6	6806.5
50°	5120.6	5099.1	5628.5	6952.0	8826.5	10714.3	11576.3	11745.0	10214.6	9784.4	6459.0
52.5°	2705.1	2797.7	3183.2	4371.1	6240.6	8768.7	10211.3	10474.4	9854.0	9073.0	5959.4
55°	1149.8	1039.0	1335.2	1973.7	3510.8	5858.4	7491.4	8077.0	8331.9	8029.1	5213.2
57.5°	410.3	448.3	516.2	742.9	1475.8	3206.3	4467.1	4922.0	5772.5	5891.5	3552.1
60°	263.1	268.0	289.6	340.9	554.2	1235.8	2119.4	2481.7	2867.2	2959.8	1657.8
62.5°	203.5	205.1	215.0	223.4	263.1	479.8	795.8	943.0	979.4	842.1	435.1
65°	170.4	172.1	175.3	175.3	187.0	225.0	278.0	306.0	297.8	294.5	246.5
67.5°	130.7	134.0	140.6	140.6	147.3	137.3	153.9	163.8	185.3	225.0	210.1
70°	102.6	104.2	109.2	112.5	112.5	99.2	110.8	120.8	135.7	167.1	165.4
72.5°	79.4	82.8	86.0	86.0	81.1	67.9	79.4	87.7	97.6	115.8	112.5
75°	61.2	61.2	62.9	51.3	39.7	34.7	48.0	57.9	72.8	76.1	62.9
77.5°	16.6	18.2	16.6	14.9	16.6	24.8	31.5	36.4	46.3	46.3	41.4
80°	0.0	1.7	5.0	9.9	16.6	23.1	28.1	31.5	36.4	39.7	38.0
82.5°	0.0	1.7	5.0	9.9	14.9	18.2	24.8	26.5	29.8	34.7	34.7
85°	0.0	1.7	3.3	6.6	9.9	11.6	11.6	9.9	9.9	8.2	6.6
87.5°	0.0	0.0	1.7	3.3	3.3	5.0	5.0	5.0	5.0	5.0	5.0
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°	3277.5	3277.5	3277.5	3277.5	3277.5	3277.5	3277.5	3277.5	3277.5	3277.5	3277.5
2.5°	3294.0	3242.7	3165.0	3042.6	2925.1	2849.0	2776.2	2695.2	2650.4	2647.1	2622.3
5°	3333.7	3217.9	3032.6	2822.5	2597.5	2403.9	2208.7	2081.3	1967.2	1904.3	1892.7
7.5°	3355.3	3204.7	2905.2	2552.9	2169.0	1853.0	1634.6	1474.1	1411.3	1364.9	1363.3
10°	3399.9	3181.5	2715.0	2195.4	1720.6	1401.4	1250.7	1178.0	1143.3	1130.0	1110.1
12.5°	3433.0	3138.5	2519.7	1828.2	1360.0	1161.4	1095.2	1078.8	1080.3	1087.0	1078.8
15°	3479.3	3100.4	2256.7	1500.6	1141.6	1045.6	1045.6	1048.9	1072.1	1075.4	1073.7
17.5°	3476.0	3026.0	1985.3	1235.8	1009.2	996.0	1001.0	1032.4	1047.3	1052.3	1040.7
20°	3515.7	2956.5	1705.7	1055.5	934.8	954.6	987.8	996.0	1014.2	1017.5	1004.2
22.5°	3504.1	2782.8	1446.0	913.2	878.5	916.6	949.7	959.6	954.6	944.7	943.0
25°	3482.7	2633.9	1207.8	819.0	837.1	878.5	910.0	891.8	881.8	883.5	885.2
27.5°	3444.6	2445.3	1010.9	752.8	780.9	842.1	840.5	833.9	843.8	835.5	843.8
30°	3438.0	2256.7	848.7	693.2	739.6	784.2	787.5	799.1	810.7	795.8	810.7
32.5°	3447.9	2049.9	732.9	656.8	714.8	716.4	752.8	764.4	756.1	723.0	726.3
35°	3524.0	1891.1	648.6	637.0	675.0	676.7	711.4	696.5	660.1	640.3	651.9
37.5°	3684.5	1758.7	608.8	618.8	622.1	643.6	645.2	615.4	618.8	617.1	623.8
40°	3889.6	1657.8	580.7	602.2	598.9	613.8	554.2	570.8	585.7	590.6	593.9
42.5°	4030.2	1584.9	562.5	575.7	569.1	542.7	509.6	526.1	537.7	555.9	559.2
45°	4093.1	1527.1	541.0	529.4	529.4	481.5	468.2	471.5	498.0	517.9	514.5
47.5°	3990.5	1470.8	502.9	468.2	479.8	440.1	425.2	425.2	453.3	478.1	473.1
48°	3950.8	1447.6	504.6	455.0	463.2	433.5	418.6	415.3	446.7	469.9	469.9
50°	3754.0	1361.7	461.6	418.6	402.0	398.7	388.8	392.1	411.9	433.5	433.5
52.5°	3370.1	1176.3	390.5	359.0	329.3	349.1	354.1	347.4	357.3	377.2	375.6
55°	2812.6	903.3	312.7	297.8	274.7	296.1	306.0	297.8	287.9	302.8	302.8
57.5°	1801.7	486.4	249.9	253.1	229.9	251.5	259.8	239.9	221.7	233.3	231.6
60°	812.3	291.2	205.1	200.2	185.3	210.1	223.4	200.2	175.3	183.7	191.9
62.5°	304.4	206.8	155.5	152.2	148.9	172.1	178.7	160.5	135.7	140.6	142.3
65°	223.4	182.0	124.0	112.5	119.1	135.7	132.4	114.1	97.6	97.6	100.9
67.5°	190.2	158.9	100.9	87.7	87.7	89.3	82.8	72.8	67.9	71.1	74.4
70°	148.9	125.7	79.4	67.9	61.2	54.6	48.0	46.3	41.4	46.3	44.7
72.5°	96.0	84.4	61.2	51.3	46.3	38.0	31.5	29.8	24.8	23.1	23.1
75°	51.3	51.3	48.0	41.4	36.4	29.8	24.8	19.8	13.2	9.9	9.9
77.5°	36.4	39.7	43.0	39.7	33.1	24.8	19.8	13.2	6.6	3.3	3.3
80°	34.7	39.7	43.0	38.0	33.1	24.8	18.2	9.9	5.0	1.7	1.7
82.5°	31.5	36.4	39.7	34.7	29.8	21.5	16.6	9.9	5.0	1.7	1.7
85°	6.6	8.2	9.9	9.9	11.6	14.9	11.6	8.2	3.3	1.7	1.7
87.5°	5.0	5.0	5.0	5.0	5.0	5.0	3.3	3.3	1.7	1.7	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)