

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: P301000

Luminaire Tested: **GLNA-AF-07-LED-E1-SL4-7050-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301000
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-07-LED-E1-SL4-7050-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 5000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26263 lumens
Efficiency: N/A
Efficacy: 116.2 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G4

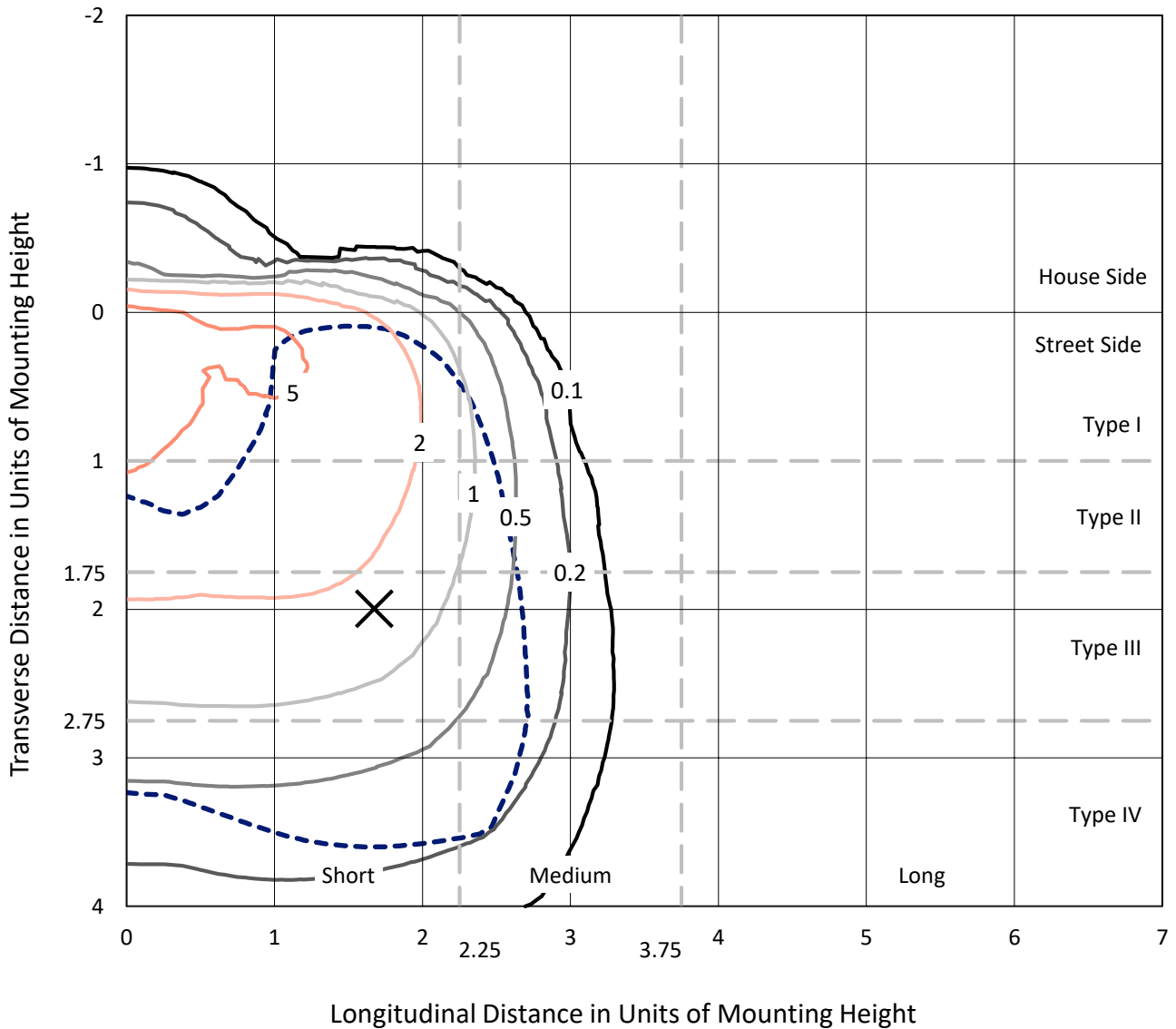
Input Watts (W): 226
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

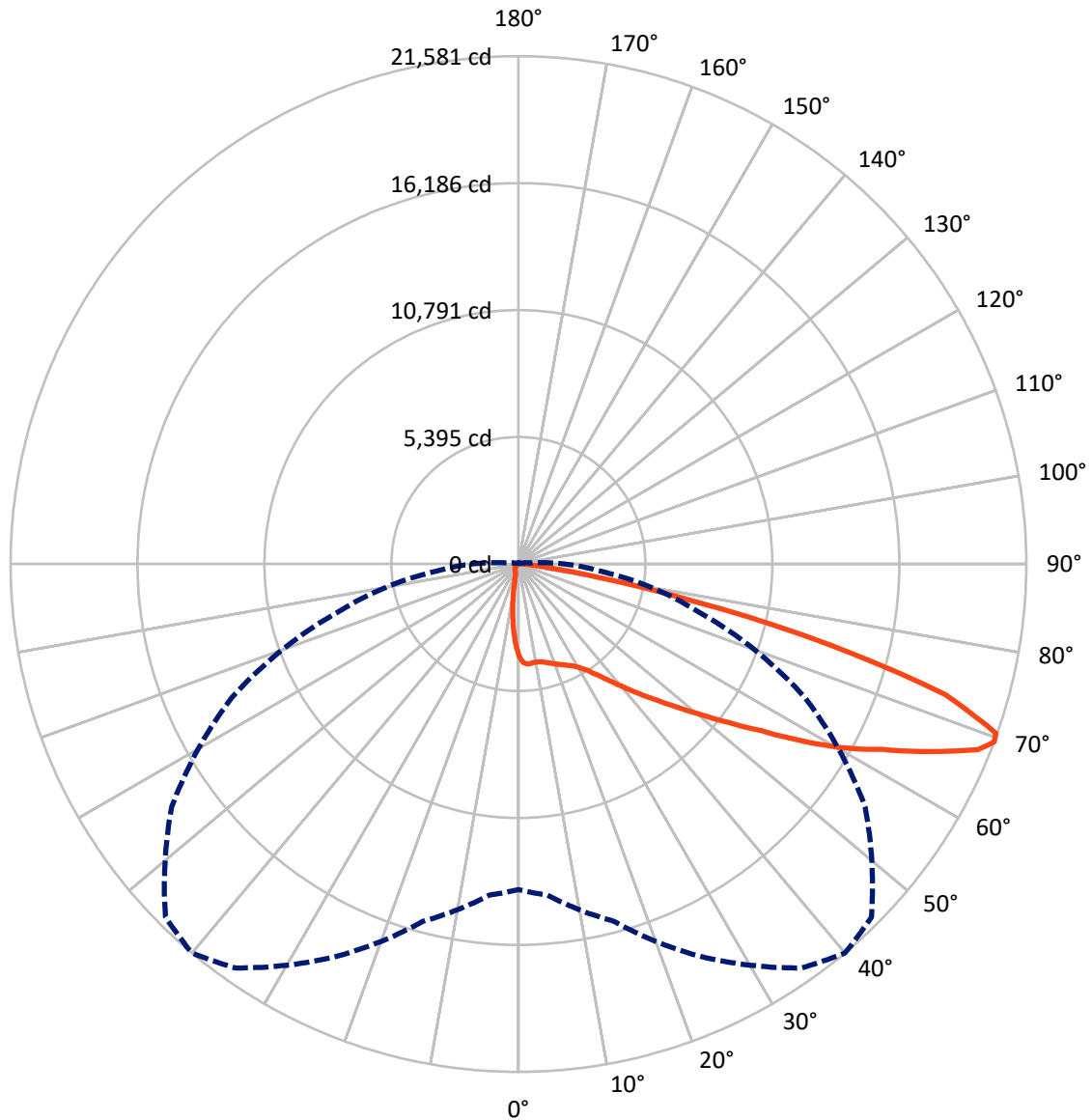
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.9 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1536.5	0.0	1536.5
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	24726.4	0.0	24726.4
	% Fixture	94.1	0.0	94.1
Total	Lumens	26263.0	0.0	26263.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	318.1	1.2
10°-20°	782.4	3.0
20°-30°	1317.8	5.0
30°-40°	2157.3	8.2
40°-50°	3735.2	14.2
50°-60°	5883.4	22.4
60°-70°	7683.4	29.3
70°-80°	3957.3	15.1
80°-90°	428.1	1.6
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°	26263.0	100.0
0°-180°	26263.0	100.0

Coefficient of Utilization



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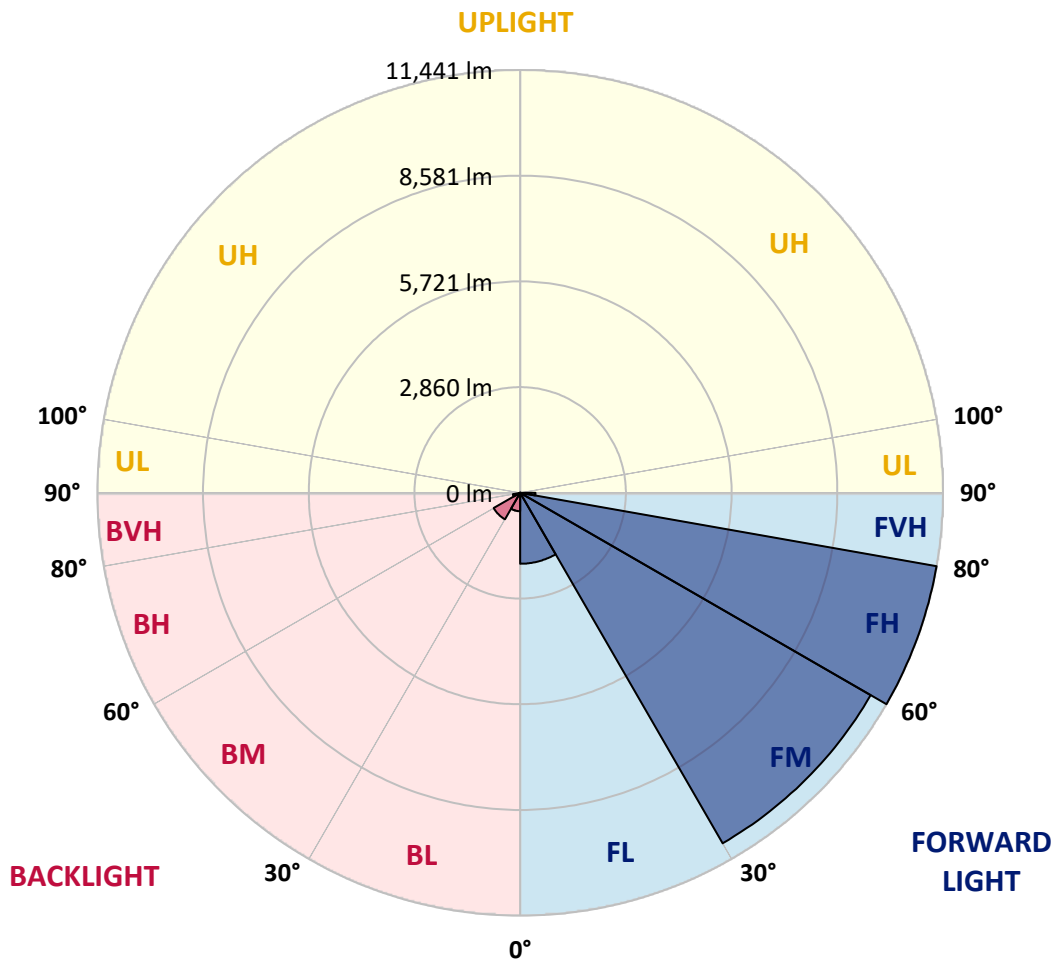
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1920.6	7.3			
FM	(30°-60°)	10950.0	41.7			
FH	(60°-80°)	11441.2	43.6			G4/12000
FVH	(80°-90°)	414.6	1.6			G3/500
BL	(0°-30°)	497.7	1.9	B1/500		
BM	(30°-60°)	825.8	3.1	B1/1000		
BH	(60°-80°)	199.5	0.8	B1/500		G1/500
BVH	(80°-90°)	13.4	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	3923.8	3923.8	3923.8	3923.8	3923.8	3923.8	3923.8	3923.8	3923.8	3923.8	3923.8
2.5°	4308.4	4284.9	4270.9	4252.1	4228.7	4208.3	4200.5	4142.7	4088.0	4012.9	3926.9
5°	4388.1	4380.3	4355.3	4330.3	4302.1	4270.9	4253.7	4184.9	4106.7	3997.3	3847.2
7.5°	4395.9	4386.6	4355.3	4320.9	4281.8	4244.3	4214.6	4145.8	4073.9	3962.9	3780.0
10°	4383.4	4372.5	4349.0	4311.5	4263.1	4227.1	4197.4	4131.7	4070.8	3970.7	3767.5
12.5°	4369.4	4358.4	4347.5	4328.7	4286.5	4261.5	4236.5	4173.9	4119.2	4034.8	3812.8
15°	4383.4	4377.2	4389.7	4381.9	4358.4	4336.5	4311.5	4255.2	4205.2	4134.9	3895.7
17.5°	4442.8	4442.8	4481.9	4486.6	4464.7	4433.5	4397.5	4341.2	4299.0	4239.6	3994.2
20°	4582.0	4577.3	4627.3	4636.7	4583.5	4535.1	4481.9	4413.1	4380.3	4342.8	4091.1
22.5°	4821.1	4799.3	4829.0	4819.6	4714.8	4639.8	4574.1	4489.7	4472.5	4455.3	4199.0
25°	5132.2	5119.7	5140.1	5047.8	4863.4	4761.7	4683.6	4588.2	4588.2	4605.4	4320.9
27.5°	5584.0	5537.1	5468.3	5305.8	5029.1	4899.3	4814.9	4713.3	4739.9	4803.9	4481.9
30°	6046.8	5995.2	5837.3	5587.1	5230.7	5094.7	4996.2	4889.9	4952.5	5069.7	4697.6
32.5°	6503.2	6445.4	6221.8	5906.1	5519.9	5383.9	5288.6	5171.3	5276.1	5473.0	5013.4
35°	6945.6	6894.0	6636.1	6264.0	5904.5	5791.9	5704.4	5602.8	5737.2	6012.4	5459.0
37.5°	7442.8	7386.5	7072.3	6668.9	6371.9	6290.6	6226.5	6124.9	6359.4	6762.7	6079.6
40°	8054.0	7958.6	7535.0	7133.2	6912.8	6873.7	6830.0	6815.9	7180.1	7738.2	6906.6
42.5°	8754.3	8598.0	8019.6	7622.5	7506.9	7535.0	7524.0	7586.6	8207.2	8951.3	7913.3
45°	9454.7	9253.0	8558.9	8144.7	8160.3	8258.8	8319.8	8569.9	9493.8	10342.6	8996.7
47.5°	10048.7	9850.2	9076.4	8709.0	8896.6	9090.5	9256.2	9729.8	10816.3	11712.1	9839.3
50°	10556.8	10369.2	9625.1	9329.6	9751.7	10064.4	10333.3	11035.2	12238.9	12754.8	10430.2
52.5°	10972.6	10847.6	10194.1	10040.9	10728.8	11186.8	11580.7	12421.8	13498.9	13602.1	10889.8
55°	11377.5	11288.4	10805.4	10886.7	11876.2	12500.0	12998.6	13892.8	14583.8	14308.7	11330.6
57.5°	11843.4	11762.1	11502.6	11959.1	13384.8	14169.5	14713.6	15196.6	15539.0	15030.9	11746.5
60°	12318.6	12271.7	12278.0	13150.3	15116.9	15870.4	16170.5	16295.6	16476.9	15710.9	11769.9
62.5°	12772.0	12861.1	13164.3	14475.9	16775.5	17353.9	17505.6	17629.1	17416.5	15818.8	10874.1
65°	13539.5	13684.9	14408.7	16250.3	18599.9	19218.9	19375.2	18951.6	17565.0	14424.3	8845.0
67.5°	13914.7	14180.5	15471.7	17904.2	20369.5	21057.3	20999.5	19037.6	15762.5	10999.2	5676.3
69°	13836.6	14119.5	15717.2	18410.7	20957.3	21581.0	21213.7	17985.5	13428.5	7968.0	3484.5
70°	13527.0	13813.1	15590.6	18391.9	21032.3	21526.3	20816.6	16686.4	11354.1	5826.3	2179.2
72.5°	11296.2	11543.2	13841.2	16623.9	19375.2	18973.5	17414.9	11560.4	5532.4	1586.7	490.9
75°	6953.5	7091.0	9931.5	12523.4	14633.8	13602.1	11602.6	5751.3	1649.3	448.7	272.0
77.5°	3673.7	3736.2	5437.1	7381.8	9276.5	7675.7	5946.7	2243.3	759.8	281.4	197.0
80°	2171.4	2218.3	2928.0	3375.1	4014.5	3353.2	2377.7	1377.2	544.0	176.7	175.1
82.5°	1242.8	1272.5	2122.9	1875.9	1582.0	1350.7	1183.4	1305.3	326.7	118.8	181.3
85°	456.5	462.7	1194.3	1427.3	941.1	559.7	587.8	1081.8	87.5	75.0	142.3
87.5°	212.6	207.9	614.4	873.9	550.3	354.9	458.0	237.6	34.4	48.5	39.1
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°	3923.8	3923.8	3923.8	3923.8	3923.8	3923.8	3923.8	3923.8	3923.8	3923.8	3923.8
2.5°	3876.9	3819.1	3714.3	3606.5	3497.0	3412.6	3329.8	3264.1	3242.2	3201.6	3204.7
5°	3758.1	3651.8	3433.0	3211.0	2979.6	2788.9	2609.1	2463.7	2393.4	2321.5	2321.5
7.5°	3654.9	3500.2	3157.8	2796.7	2423.1	2108.9	1825.9	1613.3	1496.1	1402.3	1400.7
10°	3615.9	3406.4	2928.0	2410.6	1890.0	1461.7	1125.6	909.8	798.8	726.9	723.8
12.5°	3633.1	3373.6	2751.4	2054.1	1400.7	939.5	651.9	512.8	465.9	444.0	444.0
15°	3683.1	3364.2	2574.7	1705.5	989.6	587.8	433.0	395.5	392.4	392.4	392.4
17.5°	3744.0	3367.3	2393.4	1366.3	673.8	420.5	373.6	368.9	372.1	372.1	372.1
20°	3806.6	3368.9	2198.0	1052.1	475.2	365.8	351.7	350.2	353.3	353.3	354.9
22.5°	3883.2	3376.7	2002.6	786.3	392.4	345.5	334.5	334.5	336.1	336.1	334.5
25°	3970.7	3392.3	1799.3	583.1	358.0	331.4	322.0	320.5	322.0	320.5	318.9
27.5°	4080.2	3414.2	1572.7	456.5	342.4	317.3	309.5	309.5	308.0	306.4	304.8
30°	4217.7	3439.2	1317.8	387.7	326.7	304.8	297.0	295.5	293.9	290.8	290.8
32.5°	4427.2	3493.9	1066.2	351.7	309.5	287.6	281.4	281.4	278.3	275.1	273.6
35°	4749.2	3601.8	841.0	329.9	290.8	268.9	261.1	261.1	257.9	256.4	254.8
37.5°	5194.8	3765.9	653.4	309.5	272.0	248.6	240.7	239.2	236.1	232.9	231.4
40°	5787.2	3969.2	514.3	290.8	253.3	228.2	222.0	218.9	212.6	207.9	207.9
42.5°	6531.4	4200.5	417.4	270.4	231.4	209.5	204.8	200.1	189.2	184.5	182.9
45°	7309.9	4408.4	353.3	247.0	209.5	190.7	187.6	179.8	165.7	161.0	161.0
47.5°	7871.1	4456.9	311.1	225.1	189.2	170.4	168.8	154.8	142.3	139.1	137.6
50°	8221.3	4361.5	276.7	203.2	170.4	151.6	146.9	129.8	121.9	118.8	117.2
52.5°	8457.3	4191.1	248.6	184.5	153.2	134.4	123.5	111.0	104.7	101.6	101.6
55°	8646.5	3950.4	220.4	167.3	139.1	120.4	104.7	95.4	89.1	86.0	86.0
57.5°	8699.6	3623.7	192.3	153.2	125.1	106.3	89.1	82.9	75.0	73.5	73.5
60°	8313.5	3034.3	170.4	136.0	112.6	92.2	78.2	70.3	62.5	61.0	59.4
62.5°	7295.8	2348.0	150.1	120.4	98.5	79.7	67.2	57.8	51.6	51.6	51.6
65°	5565.3	1574.2	131.3	104.7	86.0	67.2	57.8	46.9	43.8	43.8	45.3
67.5°	3331.3	856.7	112.6	89.1	73.5	56.3	48.5	40.6	39.1	40.6	40.6
69°	1952.5	503.4	101.6	79.7	64.1	50.0	42.2	36.0	39.1	40.6	40.6
70°	1205.3	339.2	93.8	71.9	57.8	45.3	39.1	34.4	37.5	39.1	39.1
72.5°	336.1	175.1	75.0	56.3	46.9	37.5	31.3	31.3	36.0	37.5	37.5
75°	218.9	129.8	57.8	42.2	36.0	29.7	26.6	29.7	34.4	36.0	36.0
77.5°	181.3	106.3	46.9	34.4	29.7	28.1	25.0	26.6	31.3	32.8	32.8
80°	165.7	75.0	37.5	31.3	26.6	25.0	23.4	21.9	28.1	29.7	29.7
82.5°	157.9	59.4	32.8	28.1	25.0	21.9	20.3	21.9	25.0	26.6	28.1
85°	98.5	39.1	29.7	26.6	21.9	20.3	20.3	20.3	23.4	25.0	25.0
87.5°	36.0	31.3	26.6	21.9	18.8	18.8	18.8	18.8	20.3	23.4	23.4
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)