

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: P299983

Luminaire Tested: **GLNA-AF-09-LED-E1-SL3-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299983
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24288)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-09-LED-E1-SL3-7027-600
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Medium OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30355 lumens
Efficiency: N/A
Efficacy: 104.7 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 290
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

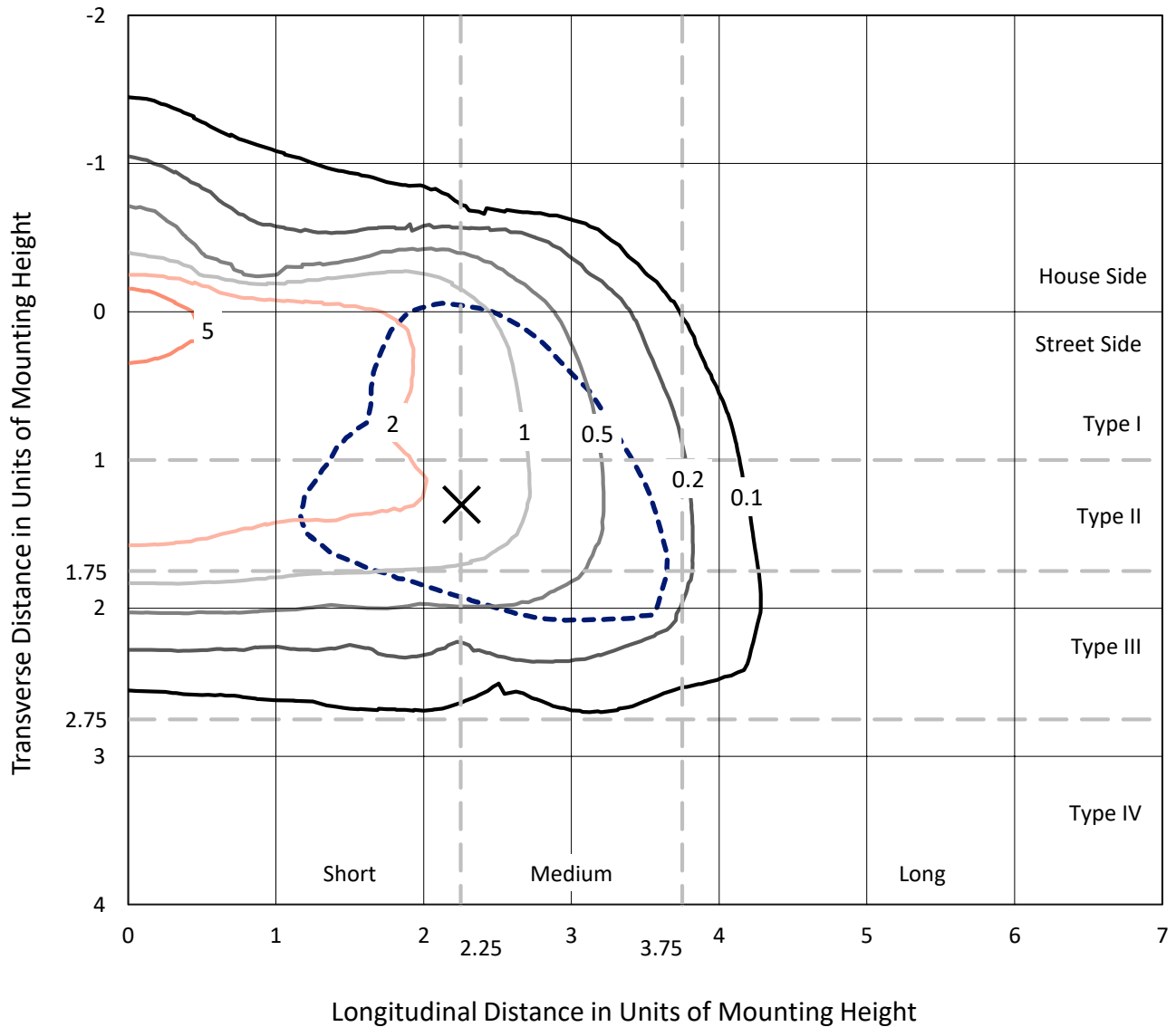


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Iso-Footcandle Lines of Horizontal Illumination

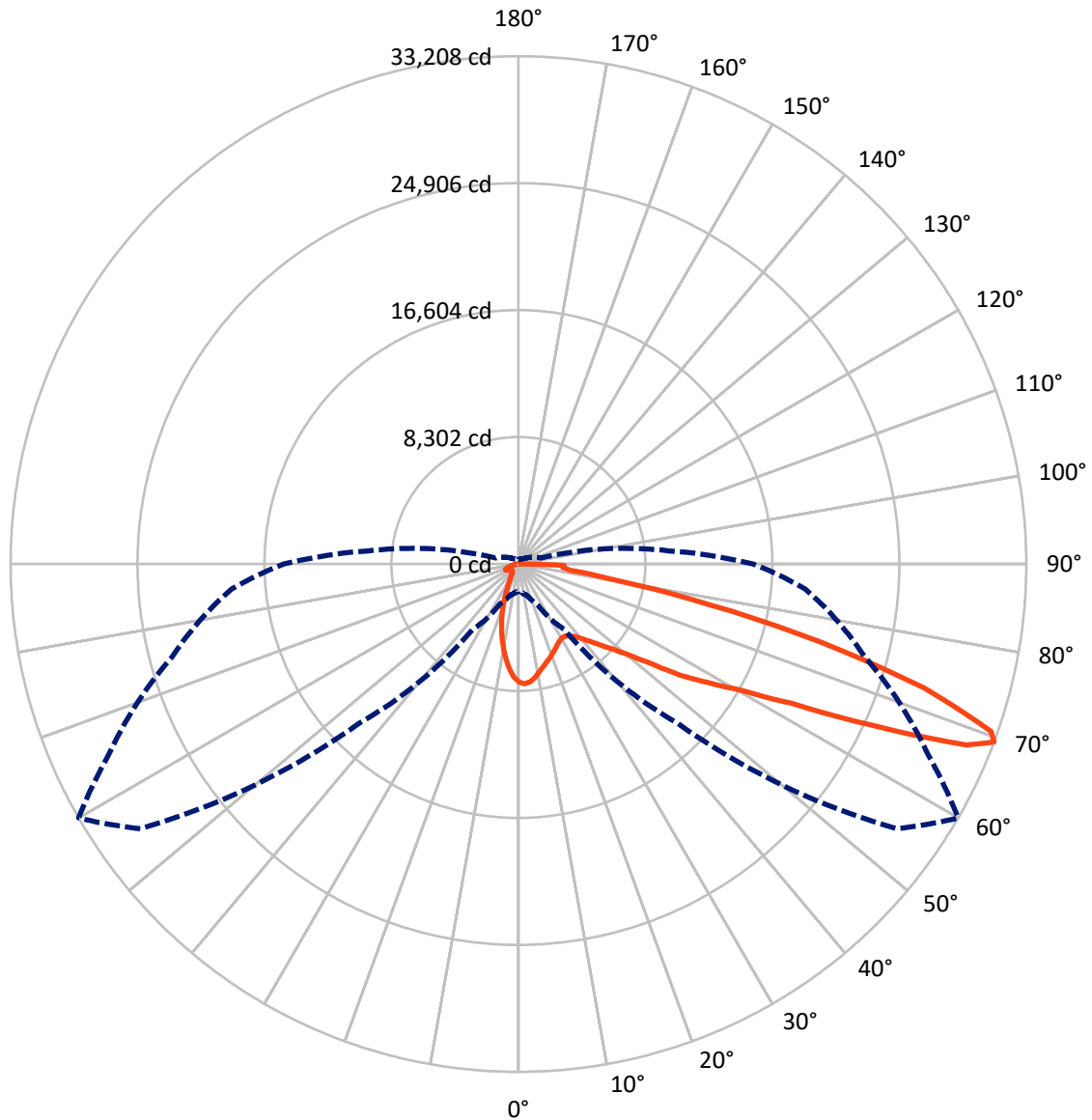
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.6 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4318.6	0.0	4318.6
	% Fixture	14.2	0.0	14.2
Street Side	Lumens	26036.4	0.0	26036.4
	% Fixture	85.8	0.0	85.8
Total	Lumens	30355.0	0.0	30355.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	654.0	2.2
10°-20°	1393.4	4.6
20°-30°	1775.5	5.8
30°-40°	2440.8	8.0
40°-50°	3960.5	13.0
50°-60°	6351.6	20.9
60°-70°	8453.5	27.8
70°-80°	4564.2	15.0
80°-90°	761.6	2.5
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°	30355.0	100.0
0°-180°	30355.0	100.0

Coefficient of Utilization



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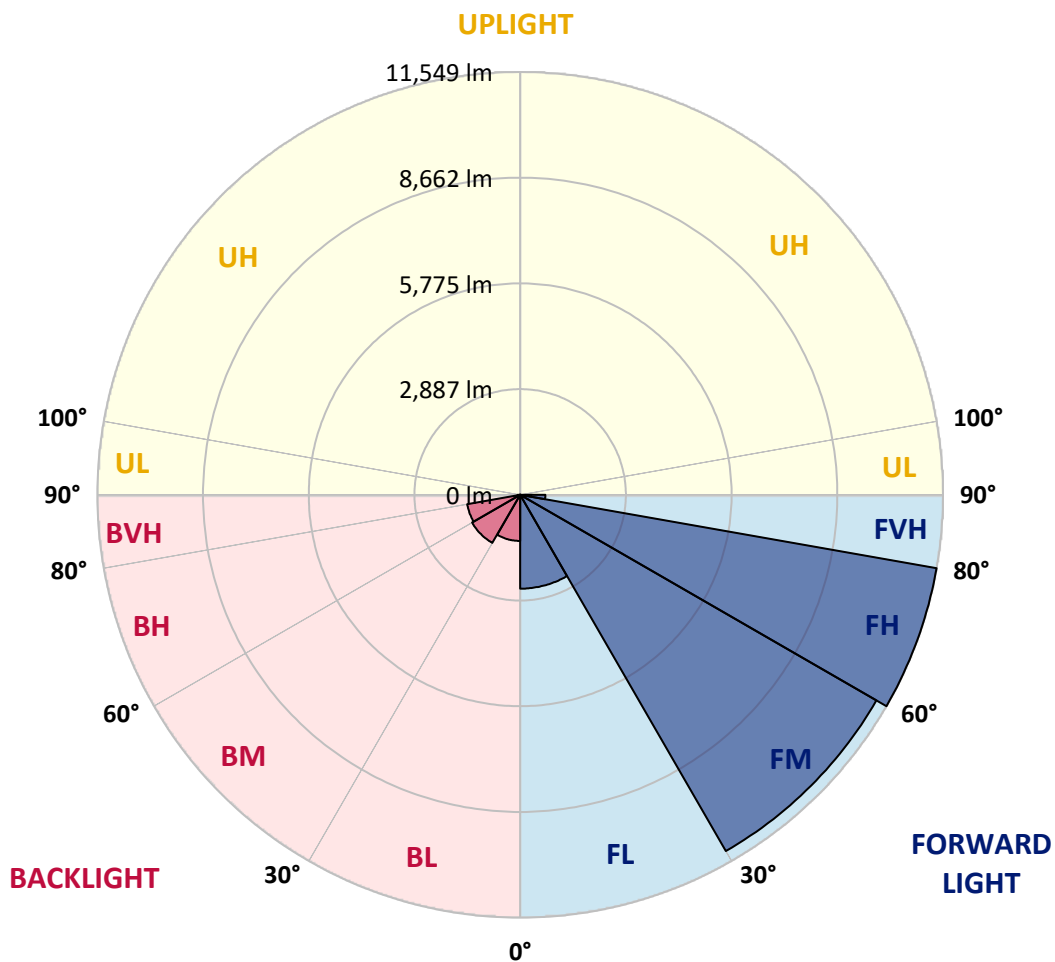
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2563.1	8.4			
FM	(30°-60°)	11235.6	37.0			
FH	(60°-80°)	11549.5	38.0			G4/12000
FVH	(80°-90°)	688.2	2.3			G4/750
BL	(0°-30°)	1259.9	4.2	B3/2500		
BM	(30°-60°)	1517.2	5.0	B2/2500		
BH	(60°-80°)	1468.2	4.8	B3/2500		G3/2500
BVH	(80°-90°)	73.3	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	7734.9	7734.9	7734.9	7734.9	7734.9	7734.9	7734.9	7734.9	7734.9	7734.9	7734.9
2.5°	7893.3	7910.9	7903.5	7899.1	7912.3	7891.8	7849.3	7836.1	7815.6	7767.2	7685.1
5°	7597.1	7649.9	7646.9	7686.5	7752.5	7770.1	7751.0	7754.0	7715.9	7655.7	7519.4
7.5°	7085.3	7107.3	7119.1	7205.6	7325.8	7422.6	7504.7	7531.1	7513.5	7462.2	7286.2
10°	6557.4	6575.0	6602.9	6704.1	6856.6	6990.0	7145.4	7234.9	7273.0	7264.2	7067.7
12.5°	6104.3	6121.9	6158.6	6273.0	6454.8	6619.0	6844.8	6956.3	7047.2	7101.5	6890.3
15°	5698.2	5736.3	5771.5	5903.5	6107.3	6322.8	6578.0	6718.7	6859.5	6981.2	6733.4
17.5°	5381.4	5419.6	5440.1	5560.3	5777.4	6041.3	6340.4	6506.1	6682.1	6881.5	6578.0
20°	5198.2	5215.8	5207.0	5274.4	5469.4	5749.5	6104.3	6296.4	6509.1	6787.7	6422.5
22.5°	5146.8	5148.3	5116.0	5108.7	5234.8	5470.9	5852.1	6085.3	6346.3	6726.1	6289.1
25°	5271.5	5267.1	5179.1	5107.2	5120.4	5258.3	5608.7	5880.0	6209.9	6712.9	6186.5
27.5°	5548.6	5561.8	5431.3	5296.4	5163.0	5158.6	5424.0	5709.9	6098.5	6773.0	6142.5
30°	5937.2	5959.2	5819.9	5648.3	5397.6	5190.8	5352.1	5608.7	6029.6	6897.6	6135.1
32.5°	6362.4	6385.9	6280.3	6100.0	5771.5	5390.2	5402.0	5617.5	6026.6	7072.1	6185.0
35°	6815.5	6841.9	6787.7	6635.2	6270.0	5758.3	5592.6	5759.8	6121.9	7339.0	6318.4
37.5°	7321.4	7362.5	7377.1	7232.0	6841.9	6243.7	5904.9	6029.6	6337.5	7710.0	6563.3
40°	8050.2	8107.4	8103.0	7894.7	7497.4	6899.1	6387.4	6419.6	6673.3	8205.6	6954.8
42.5°	9446.1	9457.9	9092.7	8639.6	8218.8	7588.3	6956.3	6929.9	7136.6	8833.2	7531.1
45°	11221.9	11173.5	10361.1	9485.7	8972.5	8380.1	7696.8	7567.8	7724.6	9598.6	8252.5
47.5°	12695.5	12584.1	11557.6	10349.4	9770.2	9240.8	8566.3	8340.5	8427.0	10466.7	9185.1
50°	13207.3	13123.7	12273.2	11067.9	10525.3	10290.7	9636.7	9317.1	9340.5	11501.9	10277.5
52.5°	13097.3	13085.6	12518.1	11541.5	11232.1	11393.4	11152.9	10720.4	10491.6	12651.5	11456.5
55°	12837.8	12862.7	12657.4	12092.9	12040.1	12458.0	13134.0	12814.3	12103.1	13811.4	12675.0
57.5°	11936.0	12000.5	12452.1	12786.4	13340.7	13962.4	14729.3	14638.4	13837.8	15065.1	14123.7
60°	9616.2	9765.8	10977.0	12651.5	14679.5	16623.8	16967.0	16755.8	15626.7	16620.9	16037.3
62.5°	6737.8	6893.2	8333.2	10953.5	14459.5	19629.8	20967.1	20056.5	18195.7	18912.8	18513.9
65°	3607.2	3682.0	4781.7	7600.0	12207.2	20250.1	26813.4	25427.7	22263.4	21738.4	20632.8
67.5°	1989.8	2030.9	2451.7	3837.4	7818.5	17832.1	30537.9	31584.8	27347.1	23619.7	20247.1
69°	1799.2	1837.3	2113.0	2906.3	5231.9	14744.0	30174.2	33208.1	29576.0	23433.5	18821.9
70°	1759.6	1794.8	2042.6	2679.0	4234.8	12153.0	28955.7	32793.1	30106.8	22766.3	17578.4
72.5°	1583.6	1621.8	1862.2	2406.3	3618.9	6058.9	22936.4	27726.9	27333.9	19739.8	13333.4
75°	1476.6	1511.8	1919.4	2356.4	3464.9	3834.5	15120.8	20434.8	20093.2	13808.5	7189.4
77.5°	632.0	629.1	890.1	1994.2	3516.3	3712.8	8125.0	12765.9	11647.1	5902.0	2064.6
80°	422.3	415.0	422.3	586.5	3224.5	3733.3	4256.8	6479.7	4894.6	1504.5	1017.6
82.5°	363.7	357.8	371.0	357.8	1133.5	4261.2	3618.9	3445.9	2327.1	854.9	504.4
85°	244.9	234.6	319.7	321.1	535.2	3786.1	4076.4	2910.7	1882.8	507.4	249.3
87.5°	117.3	114.4	186.2	227.3	313.8	1538.2	4573.5	2982.5	1898.9	259.5	118.8
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°	7734.9	7734.9	7734.9	7734.9	7734.9	7734.9	7734.9	7734.9	7734.9	7734.9	7734.9
2.5°	7660.1	7600.0	7541.4	7471.0	7397.7	7315.5	7274.5	7233.4	7223.2	7211.4	7170.4
5°	7449.0	7363.9	7217.3	7056.0	6885.9	6720.2	6594.1	6514.9	6454.8	6424.0	6369.8
7.5°	7176.2	7051.6	6795.0	6516.4	6230.5	5969.4	5743.6	5601.4	5466.5	5403.4	5331.6
10°	6916.7	6730.5	6331.6	5921.1	5510.5	5116.0	4745.1	4482.6	4249.4	4118.9	4026.6
12.5°	6693.8	6438.7	5885.9	5330.1	4767.1	4205.4	3649.7	3212.7	2847.6	2655.5	2557.3
15°	6476.8	6168.9	5462.1	4756.8	4033.9	3269.9	2539.7	2044.1	1742.0	1621.8	1580.7
17.5°	6280.3	5885.9	5036.9	4179.1	3277.3	2353.5	1706.8	1434.1	1318.2	1278.6	1265.4
20°	6067.7	5599.9	4595.5	3574.9	2488.4	1645.2	1332.9	1212.7	1165.7	1154.0	1148.1
22.5°	5862.4	5318.4	4173.2	2928.3	1787.5	1269.8	1145.2	1095.4	1088.0	1098.3	1098.3
25°	5687.9	5066.2	3717.2	2252.3	1312.4	1069.0	1025.0	1013.2	1041.1	1079.2	1086.6
27.5°	5557.4	4859.4	3231.8	1662.8	1045.5	929.7	928.2	947.3	1016.2	1089.5	1104.1
30°	5468.0	4662.9	2712.7	1199.5	876.9	818.2	841.7	882.7	983.9	1088.0	1115.9
32.5°	5422.5	4517.8	2171.6	928.2	750.8	718.5	758.1	808.0	907.7	1004.4	1041.1
35°	5457.7	4410.7	1661.4	774.2	662.8	637.9	678.9	727.3	786.0	827.0	854.9
37.5°	5589.7	4368.2	1253.7	693.6	602.7	579.2	611.5	639.3	662.8	674.5	687.7
40°	5874.1	4413.7	1004.4	652.5	568.9	539.6	552.8	563.1	577.7	589.5	595.3
42.5°	6293.5	4550.0	900.3	636.4	551.3	508.8	505.9	510.3	529.3	551.3	555.7
45°	6880.0	4790.5	893.0	646.7	542.5	483.9	470.7	476.6	505.9	539.6	545.5
47.5°	7629.3	5157.1	951.7	677.4	549.9	470.7	448.7	456.0	492.7	538.1	545.5
50°	8537.0	5668.8	1049.9	722.9	582.1	473.6	441.4	445.8	483.9	533.7	541.1
52.5°	9608.9	6394.7	1156.9	766.9	615.9	492.7	447.2	437.0	472.2	516.1	524.9
55°	10801.0	7325.8	1266.9	806.5	633.5	516.1	459.0	425.2	450.2	486.8	494.2
57.5°	12264.4	8627.9	1457.5	844.6	645.2	532.3	470.7	413.5	422.3	448.7	454.6
60°	14245.4	10469.6	1793.3	907.7	671.6	538.1	469.2	403.2	394.4	409.1	412.0
62.5°	16619.4	12469.7	2073.4	986.8	715.6	542.5	460.4	395.9	371.0	371.0	373.9
65°	18028.6	13004.9	1918.0	1052.8	752.2	538.1	450.2	388.6	353.4	337.3	338.7
67.5°	16833.5	11437.4	1643.8	1066.0	750.8	517.6	434.0	375.4	335.8	310.9	309.4
69°	15336.4	9868.4	1520.6	1030.8	715.6	491.2	413.5	360.7	322.6	296.2	294.7
70°	14129.6	8910.9	1439.9	992.7	677.4	472.2	397.4	347.5	312.3	287.4	284.5
72.5°	10273.1	5838.9	1230.3	853.4	558.7	395.9	343.1	305.0	278.6	263.9	261.0
75°	5133.6	2784.6	998.6	692.1	428.2	316.7	281.5	255.1	241.9	239.0	237.5
77.5°	1686.3	1275.7	714.1	516.1	318.2	247.8	227.3	208.2	205.3	214.1	211.2
80°	926.7	742.0	453.1	341.7	217.0	181.8	178.9	168.6	173.0	187.7	184.8
82.5°	472.2	385.6	280.1	205.3	146.6	130.5	142.2	136.4	142.2	155.4	154.0
85°	233.1	211.2	177.4	124.6	96.8	83.6	101.2	105.6	108.5	118.8	118.8
87.5°	134.9	124.6	93.8	58.7	48.4	44.0	58.7	57.2	67.5	73.3	71.9
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)