

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: P301887

Luminaire Tested: **GLNA-AF-05-LED-E1-SL4-800-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301887
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-05-LED-E1-SL4-800-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control WITH HOUSESIDE SHEILD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17723.8 lumens
Efficiency: N/A
Efficacy: 84.4 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G4

Input Watts (W): 210
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

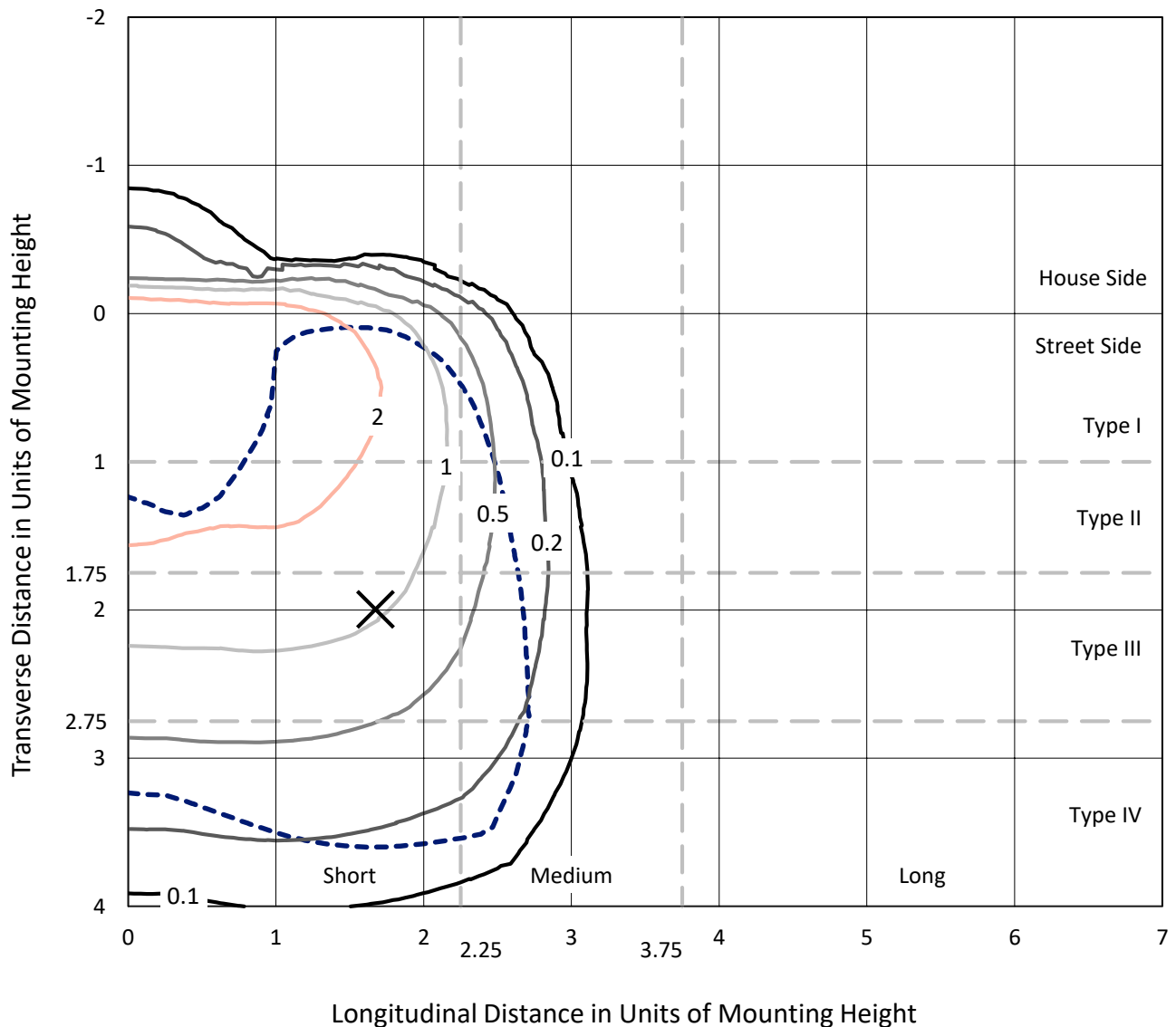


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

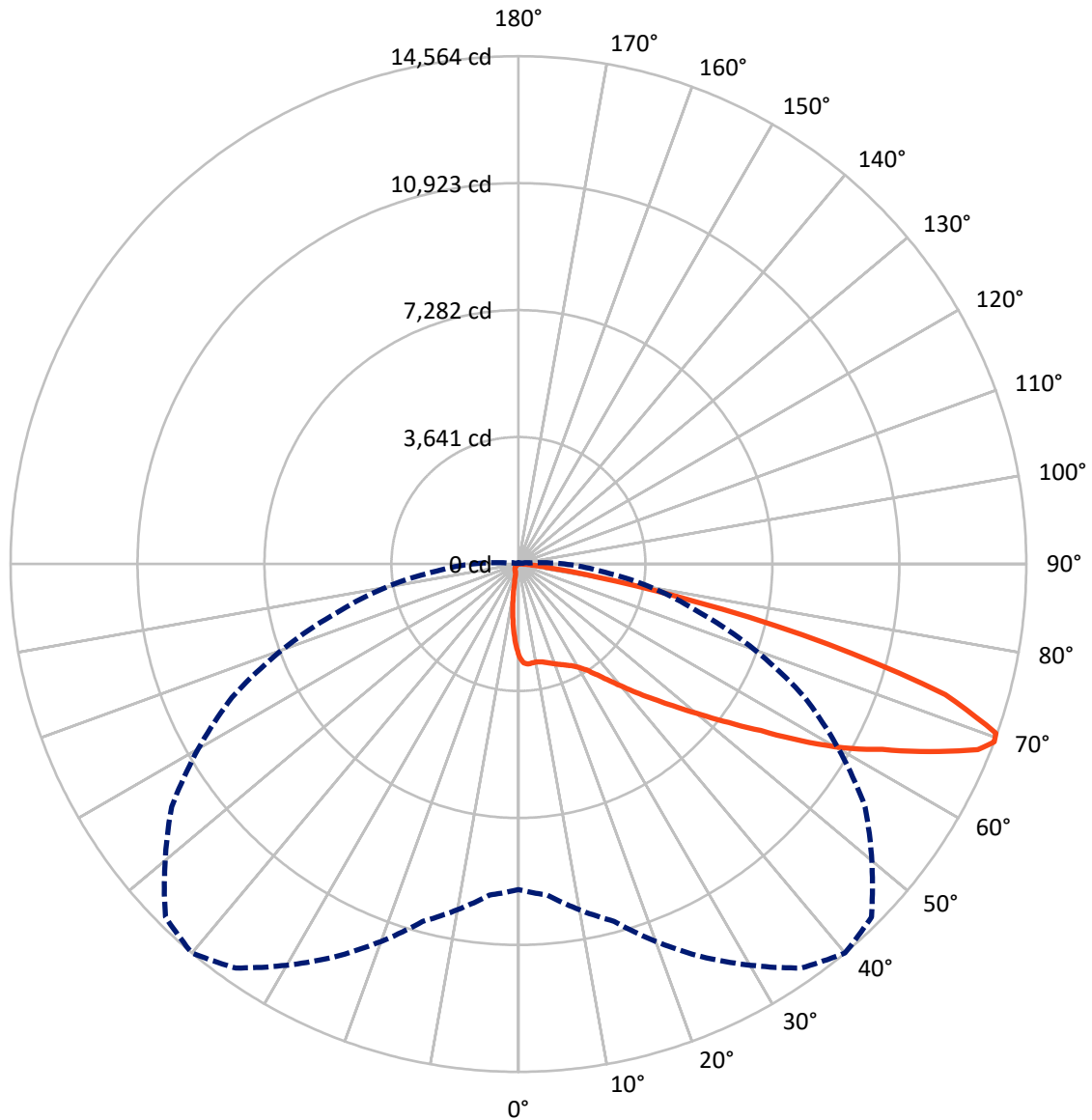


Based on 25 foot mounting height. Maximum calculated value = 4.6 fc
 Type IV - Short - Semi-Cutoff

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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	1036.9	0.0	1036.9
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	16686.9	0.0	16686.9
	% Fixture	94.1	0.0	94.1
Total	Lumens	17723.8	0.0	17723.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	214.7	1.2
10°-20°	528.0	3.0
20°-30°	889.3	5.0
30°-40°	1455.8	8.2
40°-50°	2520.8	14.2
50°-60°	3970.4	22.4
60°-70°	5185.2	29.3
70°-80°	2670.6	15.1
80°-90°	288.9	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°	17723.8	100.0
0°-180°	17723.8	100.0

Coefficient of Utilization



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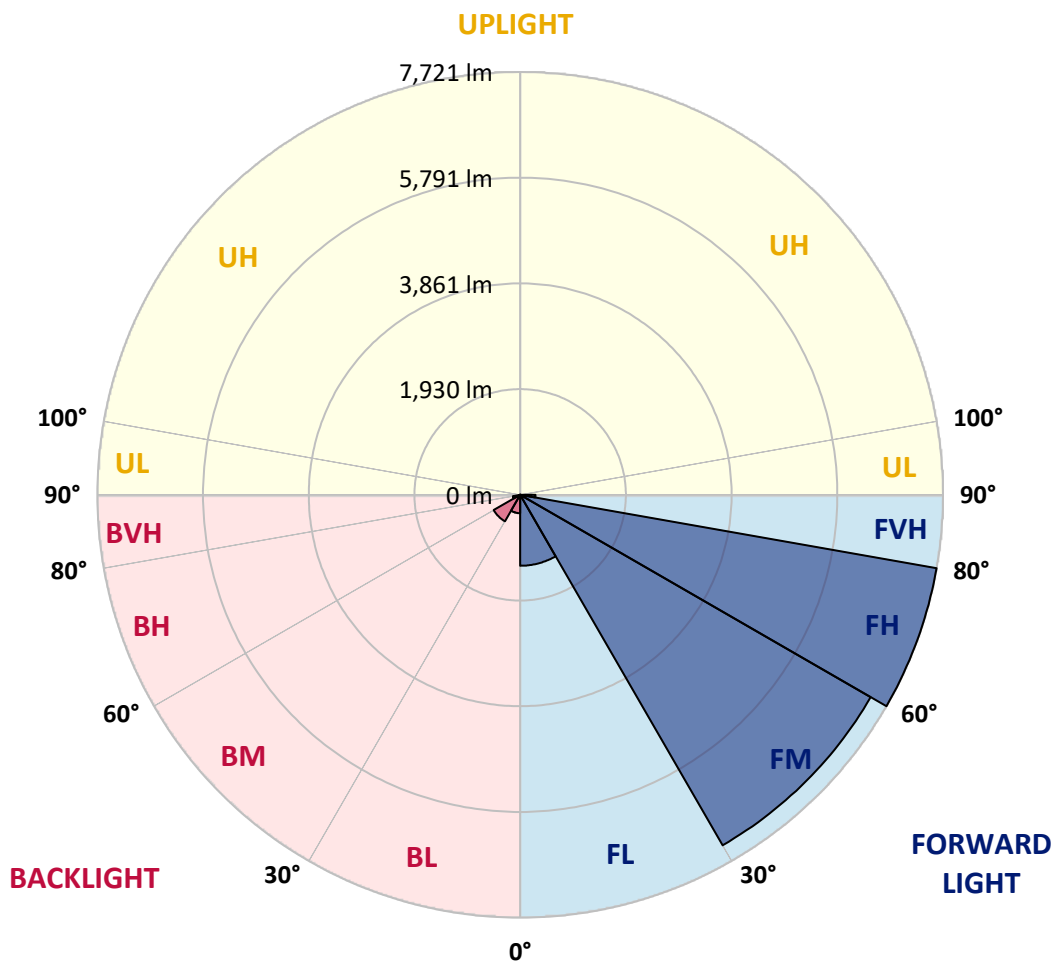
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1296.1	7.3			
FM	(30°-60°)	7389.7	41.7			
FH	(60°-80°)	7721.2	43.6			G4/12000
FVH	(80°-90°)	279.8	1.6			G3/500
BL	(0°-30°)	335.9	1.9	B1/500		
BM	(30°-60°)	557.3	3.1	B1/1000		
BH	(60°-80°)	134.6	0.8	B1/500		G1/500
BVH	(80°-90°)	9.1	0.1			G0/10
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°	2648.0	2648.0	2648.0	2648.0	2648.0	2648.0	2648.0	2648.0	2648.0	2648.0	2648.0
2.5°	2907.6	2891.7	2882.2	2869.6	2853.7	2840.0	2834.8	2795.7	2758.8	2708.2	2650.1
5°	2961.4	2956.1	2939.2	2922.3	2903.3	2882.2	2870.6	2824.2	2771.5	2697.6	2596.3
7.5°	2966.6	2960.3	2939.2	2916.0	2889.6	2864.3	2844.3	2797.8	2749.3	2674.4	2551.0
10°	2958.2	2950.8	2935.0	2909.7	2877.0	2852.7	2832.6	2788.3	2747.2	2679.7	2542.5
12.5°	2948.7	2941.3	2933.9	2921.3	2892.8	2875.9	2859.0	2816.8	2779.9	2722.9	2573.1
15°	2958.2	2954.0	2962.4	2957.1	2941.3	2926.5	2909.7	2871.7	2837.9	2790.4	2629.0
17.5°	2998.3	2998.3	3024.7	3027.8	3013.1	2992.0	2967.7	2929.7	2901.2	2861.1	2695.5
20°	3092.2	3089.0	3122.8	3129.1	3093.2	3060.5	3024.7	2978.2	2956.1	2930.8	2760.9
22.5°	3253.6	3238.8	3258.9	3252.5	3181.9	3131.2	3086.9	3029.9	3018.3	3006.7	2833.7
25°	3463.5	3455.1	3468.8	3406.6	3282.1	3213.5	3160.8	3096.4	3096.4	3108.0	2916.0
27.5°	3768.4	3736.8	3690.4	3580.6	3393.9	3306.3	3249.4	3180.8	3198.7	3242.0	3024.7
30°	4080.7	4045.9	3939.3	3770.5	3530.0	3438.2	3371.7	3300.0	3342.2	3421.3	3170.2
32.5°	4388.8	4349.7	4198.9	3985.8	3725.2	3633.4	3569.0	3489.9	3560.6	3693.5	3383.4
35°	4687.3	4652.5	4478.4	4227.3	3984.7	3908.7	3849.7	3781.1	3871.8	4057.5	3684.0
37.5°	5022.8	4984.8	4772.8	4500.6	4300.1	4245.3	4202.0	4133.5	4291.7	4563.9	4102.9
40°	5435.3	5371.0	5085.1	4813.9	4665.2	4638.8	4609.3	4599.8	4845.6	5222.2	4660.9
42.5°	5907.9	5802.4	5412.1	5144.1	5066.1	5085.1	5077.7	5119.9	5538.7	6040.9	5340.4
45°	6380.6	6244.5	5776.1	5496.5	5507.0	5573.5	5614.7	5783.5	6407.0	6979.8	6071.5
47.5°	6781.5	6647.5	6125.3	5877.3	6003.9	6134.8	6246.6	6566.3	7299.5	7904.0	6640.1
50°	7124.3	6997.7	6495.6	6296.2	6581.0	6792.0	6973.5	7447.2	8259.5	8607.7	7038.9
52.5°	7405.0	7320.6	6879.6	6776.2	7240.4	7549.5	7815.4	8383.0	9109.8	9179.5	7349.1
55°	7678.2	7618.1	7292.1	7347.0	8014.8	8435.7	8772.2	9375.7	9842.0	9656.3	7646.6
57.5°	7992.6	7937.7	7762.6	8070.7	9032.8	9562.4	9929.6	10255.6	10486.6	10143.7	7927.2
60°	8313.3	8281.7	8285.9	8874.6	10201.8	10710.3	10912.8	10997.2	11119.6	10602.7	7943.0
62.5°	8619.3	8679.4	8884.1	9769.2	11321.1	11711.4	11813.8	11897.1	11753.6	10675.4	7338.5
65°	9137.3	9235.4	9723.8	10966.6	12552.3	12970.0	13075.5	12789.6	11853.9	9734.4	5969.1
67.5°	9390.5	9569.8	10441.2	12082.8	13746.5	14210.7	14171.7	12847.7	10637.5	7422.9	3830.7
69°	9337.7	9528.7	10606.9	12424.6	14143.2	14564.1	14316.2	12137.7	9062.4	5377.3	2351.6
70°	9128.8	9321.9	10521.4	12412.0	14193.8	14527.2	14048.2	11261.0	7662.4	3931.9	1470.7
72.5°	7623.4	7790.0	9340.9	11218.8	13075.5	12804.4	11752.6	7801.7	3733.6	1070.8	331.3
75°	4692.6	4785.4	6702.4	8451.5	9875.8	9179.5	7830.1	3881.3	1113.0	302.8	183.6
77.5°	2479.2	2521.4	3669.3	4981.7	6260.3	5180.0	4013.2	1513.9	512.7	189.9	132.9
80°	1465.4	1497.0	1976.0	2277.7	2709.2	2263.0	1604.6	929.4	367.1	119.2	118.2
82.5°	838.7	858.8	1432.7	1266.0	1067.6	911.5	798.6	880.9	220.5	80.2	122.4
85°	308.1	312.3	806.0	963.2	635.1	377.7	396.7	730.1	59.1	50.6	96.0
87.5°	143.5	140.3	414.6	589.7	371.4	239.5	309.1	160.4	23.2	32.7	26.4
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°	2648.0	2648.0	2648.0	2648.0	2648.0	2648.0	2648.0	2648.0	2648.0	2648.0	2648.0
2.5°	2616.4	2577.3	2506.7	2433.9	2360.0	2303.0	2247.1	2202.8	2188.0	2160.6	2162.7
5°	2536.2	2464.5	2316.8	2166.9	2010.8	1882.1	1760.8	1662.7	1615.2	1566.7	1566.7
7.5°	2466.6	2362.1	2131.1	1887.4	1635.2	1423.2	1232.2	1088.7	1009.6	946.3	945.3
10°	2440.2	2298.8	1976.0	1626.8	1275.5	986.4	759.6	614.0	539.1	490.6	488.5
12.5°	2451.8	2276.7	1856.8	1386.3	945.3	634.0	439.9	346.0	314.4	299.6	299.6
15°	2485.6	2270.3	1737.6	1151.0	667.8	396.7	292.2	266.9	264.8	264.8	264.8
17.5°	2526.7	2272.4	1615.2	922.1	454.7	283.8	252.1	249.0	251.1	251.1	251.1
20°	2568.9	2273.5	1483.3	710.0	320.7	246.9	237.4	236.3	238.4	238.4	239.5
22.5°	2620.6	2278.8	1351.4	530.7	264.8	233.2	225.8	225.8	226.8	226.8	225.8
25°	2679.7	2289.3	1214.3	393.5	241.6	223.7	217.3	216.3	217.3	216.3	215.2
27.5°	2753.5	2304.1	1061.3	308.1	231.0	214.2	208.9	208.9	207.8	206.8	205.7
30°	2846.4	2321.0	889.4	261.6	220.5	205.7	200.4	199.4	198.3	196.2	196.2
32.5°	2987.7	2357.9	719.5	237.4	208.9	194.1	189.9	189.9	187.8	185.7	184.6
35°	3205.1	2430.7	567.6	222.6	196.2	181.5	176.2	176.2	174.1	173.0	172.0
37.5°	3505.7	2541.5	441.0	208.9	183.6	167.7	162.5	161.4	159.3	157.2	156.1
40°	3905.6	2678.6	347.1	196.2	170.9	154.0	149.8	147.7	143.5	140.3	140.3
42.5°	4407.7	2834.8	281.7	182.5	156.1	141.4	138.2	135.0	127.7	124.5	123.4
45°	4933.1	2975.1	238.4	166.7	141.4	128.7	126.6	121.3	111.8	108.7	108.7
47.5°	5311.9	3007.8	209.9	151.9	127.7	115.0	113.9	104.4	96.0	93.9	92.8
50°	5548.2	2943.4	186.7	137.1	115.0	102.3	99.2	87.6	82.3	80.2	79.1
52.5°	5707.5	2828.4	167.7	124.5	103.4	90.7	83.3	74.9	70.7	68.6	68.6
55°	5835.2	2666.0	148.8	112.9	93.9	81.2	70.7	64.4	60.1	58.0	58.0
57.5°	5871.0	2445.5	129.8	103.4	84.4	71.7	60.1	55.9	50.6	49.6	49.6
60°	5610.4	2047.7	115.0	91.8	76.0	62.2	52.7	47.5	42.2	41.1	40.1
62.5°	4923.6	1584.6	101.3	81.2	66.5	53.8	45.4	39.0	34.8	34.8	34.8
65°	3755.8	1062.4	88.6	70.7	58.0	45.4	39.0	31.6	29.5	29.5	30.6
67.5°	2248.2	578.1	76.0	60.1	49.6	38.0	32.7	27.4	26.4	27.4	27.4
69°	1317.7	339.7	68.6	53.8	43.3	33.8	28.5	24.3	26.4	27.4	27.4
70°	813.4	228.9	63.3	48.5	39.0	30.6	26.4	23.2	25.3	26.4	26.4
72.5°	226.8	118.2	50.6	38.0	31.6	25.3	21.1	21.1	24.3	25.3	25.3
75°	147.7	87.6	39.0	28.5	24.3	20.0	17.9	20.0	23.2	24.3	24.3
77.5°	122.4	71.7	31.6	23.2	20.0	19.0	16.9	17.9	21.1	22.2	22.2
80°	111.8	50.6	25.3	21.1	17.9	16.9	15.8	14.8	19.0	20.0	20.0
82.5°	106.6	40.1	22.2	19.0	16.9	14.8	13.7	14.8	16.9	17.9	19.0
85°	66.5	26.4	20.0	17.9	14.8	13.7	13.7	13.7	15.8	16.9	16.9
87.5°	24.3	21.1	17.9	14.8	12.7	12.7	12.7	12.7	13.7	15.8	15.8
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)