

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: P301159

Luminaire Tested: **GLNA-AF-04-LED-E1-T3R-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301159
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194839)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-04-LED-E1-T3R-7030-800
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 3000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19117.3 lumens
Efficiency: N/A
Efficacy: 111.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B2 - U0 - G3

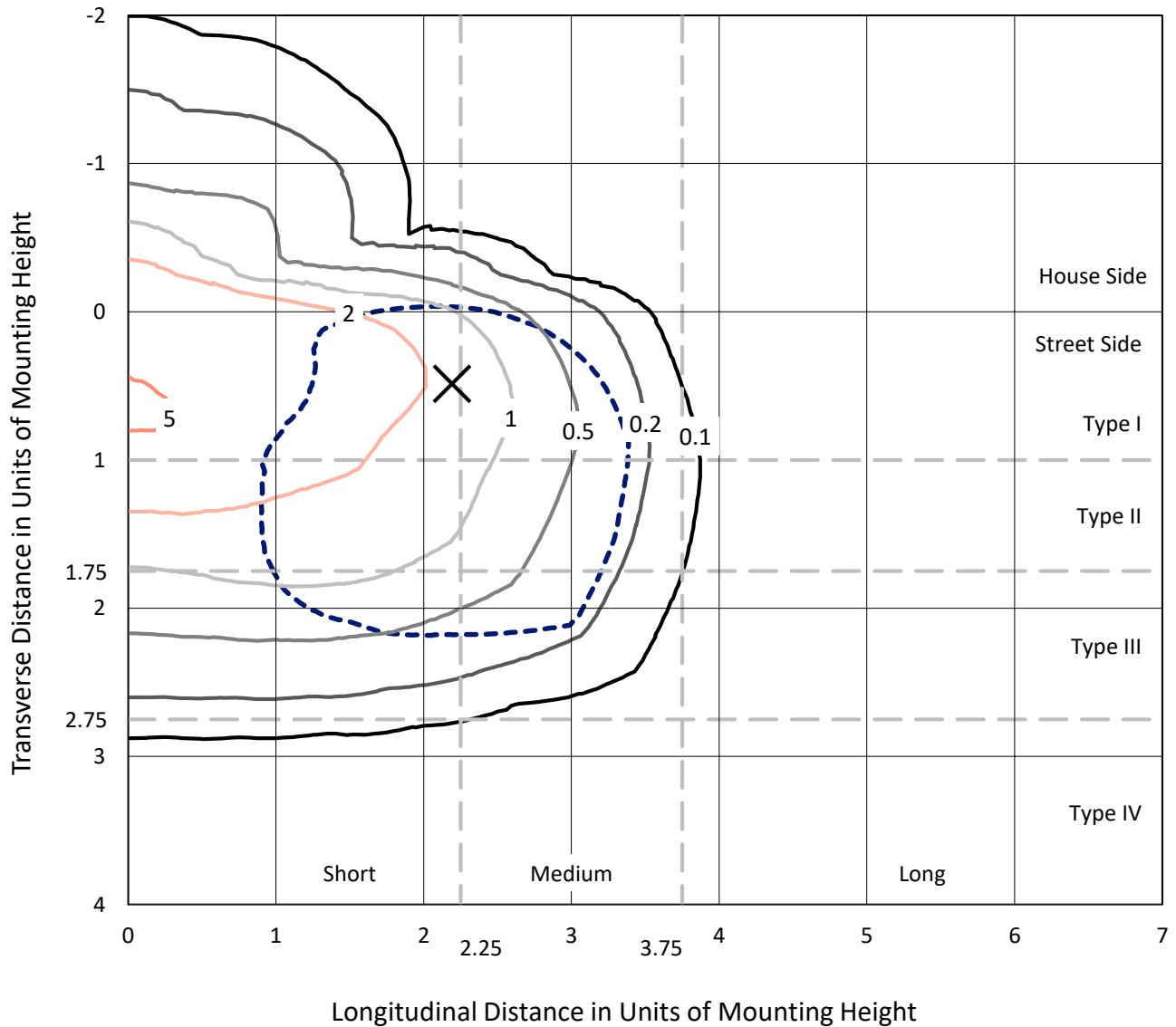
Input Watts (W): 171
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

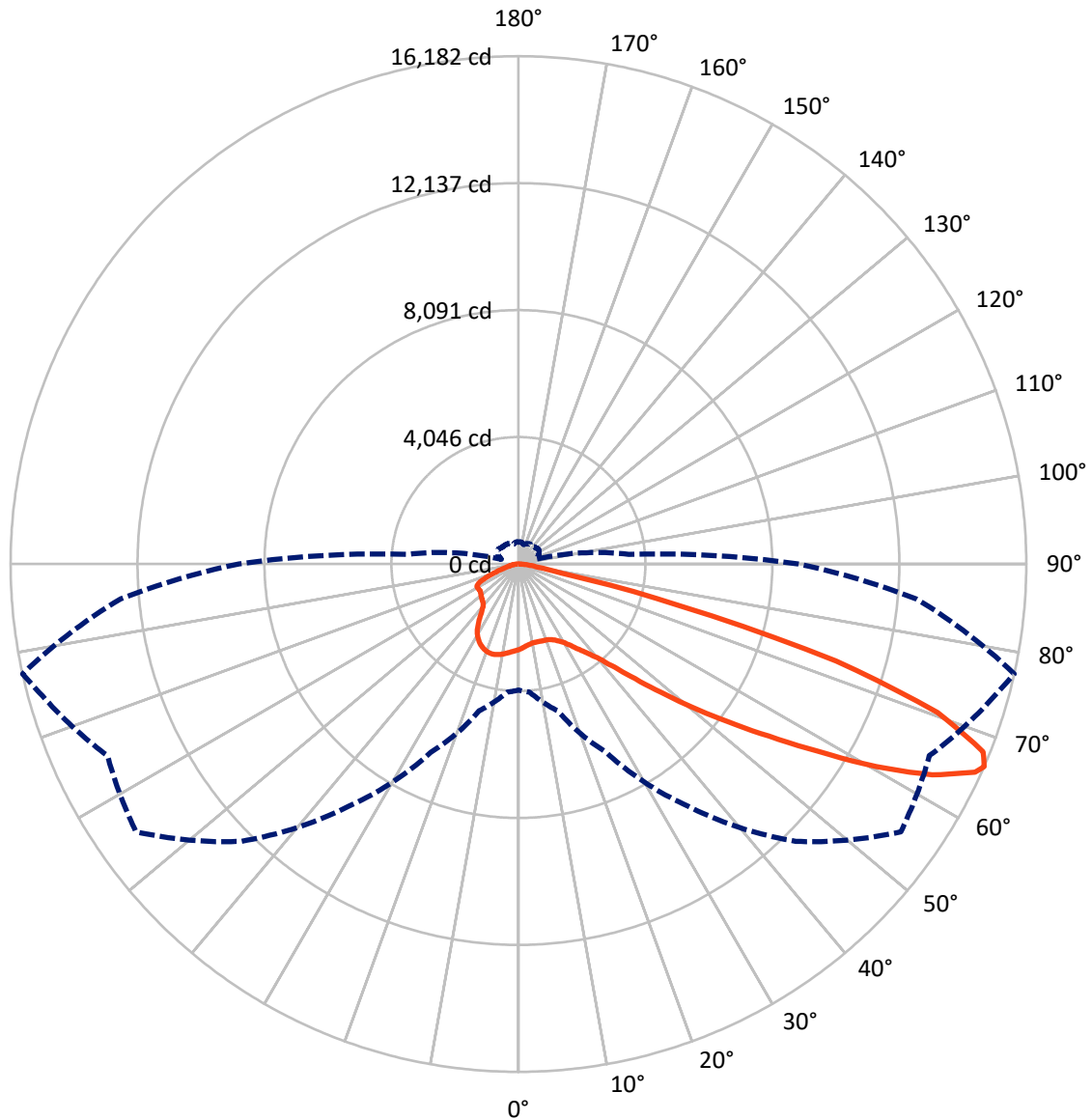
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.4 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3266.1	0.0	3266.1
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	15851.2	0.0	15851.2
	% Fixture	82.9	0.0	82.9
Total	Lumens	19117.3	0.0	19117.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	243.4	1.3
10°-20°	686.7	3.6
20°-30°	1171.9	6.1
30°-40°	1876.0	9.8
40°-50°	2898.2	15.2
50°-60°	4110.6	21.5
60°-70°	5498.9	28.8
70°-80°	2388.1	12.5
80°-90°	243.5	1.3
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°	19117.3	100.0
0°-180°	19117.3	100.0



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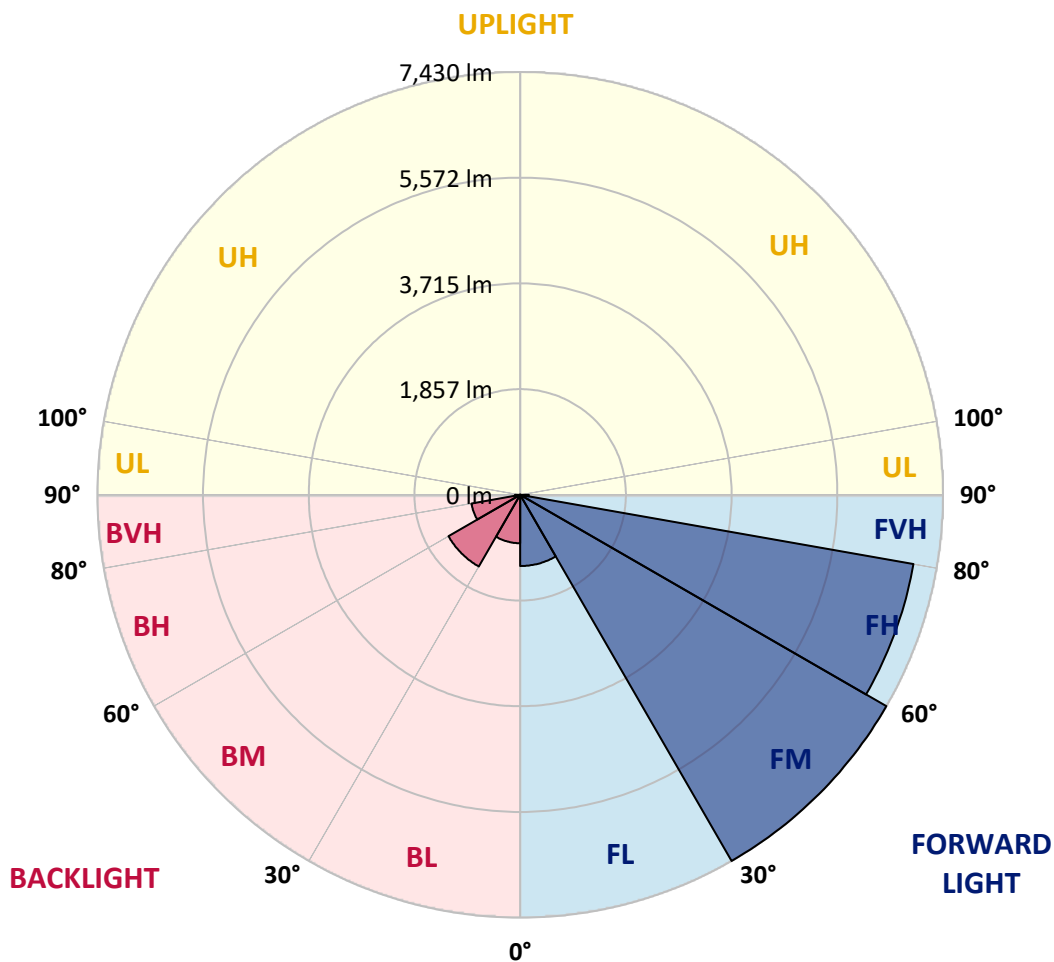
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1251.3	6.5			
FM	(30°-60°)	7430.0	38.9			
FH	(60°-80°)	7017.2	36.7			G3/7500
FVH	(80°-90°)	152.7	0.8			G2/225
BL	(0°-30°)	850.6	4.4	B2/1000		
BM	(30°-60°)	1454.8	7.6	B2/2500		
BH	(60°-80°)	869.8	4.5	B2/1000		G2/1000
BVH	(80°-90°)	90.8	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	2724.3	2724.3	2724.3	2724.3	2724.3	2724.3	2724.3	2724.3	2724.3	2724.3	2724.3
2.5°	2410.0	2426.2	2439.8	2452.4	2477.6	2519.2	2567.0	2605.9	2661.9	2672.9	2702.7
5°	2188.8	2188.8	2199.4	2218.6	2252.8	2315.1	2380.2	2466.9	2588.9	2617.6	2697.2
7.5°	2081.3	2082.1	2088.4	2104.5	2134.3	2191.2	2262.6	2364.9	2530.1	2578.0	2713.3
10°	2120.9	2111.9	2098.2	2090.3	2094.7	2128.1	2195.9	2309.7	2494.0	2555.3	2749.7
12.5°	2343.0	2326.1	2279.0	2216.7	2157.0	2132.7	2172.4	2283.4	2478.7	2550.1	2797.6
15°	2706.2	2699.1	2611.3	2482.2	2337.8	2216.7	2189.6	2273.6	2480.3	2556.4	2854.5
17.5°	3161.6	3151.5	3036.1	2848.2	2612.4	2376.7	2250.0	2281.8	2486.6	2567.0	2909.4
20°	3621.3	3590.4	3466.0	3242.0	2939.2	2594.1	2350.4	2302.5	2494.8	2578.8	2967.4
22.5°	3964.6	3939.1	3827.3	3609.6	3260.9	2846.3	2485.0	2338.6	2521.1	2613.2	3038.5
25°	4266.2	4267.9	4156.8	3946.5	3586.1	3113.7	2658.4	2435.2	2587.8	2683.5	3136.2
27.5°	4639.3	4617.7	4513.7	4305.1	3907.7	3383.7	2867.9	2568.1	2687.4	2783.9	3264.4
30°	5085.4	5070.0	4950.0	4713.4	4264.3	3673.6	3107.2	2722.4	2815.6	2915.7	3432.4
32.5°	5610.2	5603.1	5478.4	5174.0	4676.2	4015.2	3388.3	2926.7	3007.1	3111.0	3673.6
35°	6226.4	6227.2	6080.1	5714.1	5126.9	4412.6	3706.9	3189.5	3240.1	3348.4	3961.0
37.5°	6605.7	6651.7	6596.7	6223.6	5637.3	4857.0	4120.7	3538.2	3505.6	3615.0	4269.0
40°	6686.9	6743.0	6917.2	6727.7	6208.3	5346.5	4487.5	3873.2	3832.7	3966.2	4665.5
42.5°	6573.2	6650.8	7019.5	7153.0	6814.4	5949.9	4980.6	4371.0	4319.6	4499.3	5158.6
45°	6505.3	6563.3	6989.7	7374.5	7340.0	6632.0	5608.5	4995.9	4977.0	5212.8	5727.8
47.5°	6388.0	6440.5	6850.5	7425.9	7649.1	7256.9	6362.8	5760.3	5797.3	6106.3	6370.0
50°	6451.2	6472.8	6695.1	7294.9	7738.5	7715.0	7205.5	6645.4	6772.0	7157.6	7097.2
52.5°	6442.2	6498.2	6677.1	7079.9	7750.3	7997.8	8035.5	7632.7	7899.3	8341.8	7903.7
55°	5208.4	5311.3	6464.9	7025.8	7791.6	8274.8	8774.5	8673.3	9170.0	9685.8	8814.2
57.5°	4973.5	5038.6	5678.0	7139.6	8012.0	8804.3	9596.4	9818.7	10649.6	11248.5	9923.5
60°	4927.3	5007.7	5669.8	7278.8	8459.2	9666.9	10815.1	11205.3	12450.0	13105.8	11209.7
62.5°	4783.7	4870.4	5616.5	7260.5	9094.2	10860.2	12375.1	12679.5	14157.2	14794.9	12285.6
65°	4328.6	4409.8	5182.2	6968.9	9522.5	12133.8	14221.2	14030.8	15504.9	15984.4	12822.0
66°	4016.8	4096.4	4839.8	6625.7	9423.0	12495.1	14875.4	14449.0	15806.6	16182.4	12717.2
67.5°	3446.8	3509.2	4174.9	5856.9	8894.6	12596.3	15425.4	14763.2	15838.1	15971.0	12118.5
70°	2177.8	2195.9	2713.3	4043.1	6733.2	10924.2	14587.9	13982.9	14532.1	14172.5	10159.2
72.5°	944.9	938.6	1302.7	2056.7	3812.0	7330.2	11800.5	11537.6	11399.5	10579.3	7111.7
75°	525.7	533.0	676.6	954.8	1549.1	3600.6	7719.4	7387.1	6237.0	5322.2	3224.8
77.5°	421.7	431.8	560.9	677.4	695.5	1255.6	3612.3	2939.2	1769.5	1420.0	896.0
80°	333.4	351.4	489.6	527.6	468.8	517.5	1167.0	933.2	700.1	642.2	464.4
82.5°	263.6	276.5	420.1	399.3	327.9	348.7	559.0	544.8	455.4	414.6	268.3
85°	189.8	213.1	345.1	300.8	215.0	234.9	371.1	355.8	260.9	213.1	118.4
87.5°	77.7	101.2	244.0	199.7	120.1	109.4	185.2	174.2	123.6	90.3	58.8
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°	2724.3	2724.3	2724.3	2724.3	2724.3	2724.3	2724.3	2724.3	2724.3	2724.3	2724.3
2.5°	2721.5	2743.1	2771.3	2788.5	2797.6	2803.9	2813.7	2812.9	2815.6	2816.4	2820.0
5°	2739.6	2775.7	2816.4	2827.4	2827.4	2817.3	2807.4	2791.0	2784.7	2783.1	2784.7
7.5°	2786.6	2826.3	2861.6	2849.0	2821.9	2782.0	2730.6	2685.4	2661.1	2652.9	2651.3
10°	2846.3	2894.1	2908.6	2860.8	2781.2	2685.4	2583.4	2509.3	2466.9	2455.2	2451.6
12.5°	2918.5	2963.6	2943.9	2842.7	2695.3	2541.0	2399.9	2281.8	2193.2	2165.3	2163.3
15°	2998.0	3033.3	2963.6	2786.6	2567.0	2339.5	2088.4	1884.4	1774.2	1738.9	1736.1
17.5°	3072.2	3090.2	2951.8	2689.0	2378.3	2009.9	1676.5	1519.3	1481.5	1490.5	1492.2
20°	3135.3	3135.3	2912.2	2549.0	2081.3	1575.3	1364.7	1362.3	1389.4	1416.4	1421.9
22.5°	3204.8	3163.2	2842.7	2351.2	1660.1	1289.0	1258.3	1283.5	1314.1	1344.0	1348.6
25°	3290.7	3185.9	2745.9	2051.5	1305.1	1170.6	1182.3	1203.1	1218.4	1237.6	1240.3
27.5°	3386.4	3214.7	2618.7	1638.5	1132.8	1096.7	1105.7	1112.8	1110.9	1118.3	1120.0
30°	3501.0	3248.3	2444.2	1280.8	1061.4	1033.3	1017.1	1010.8	1010.8	1022.6	1027.0
32.5°	3654.7	3297.8	2194.0	1097.5	1027.0	988.1	935.9	912.4	921.4	961.1	970.1
35°	3823.7	3351.1	1855.4	1035.2	1019.9	967.3	886.1	842.6	843.7	880.7	892.4
37.5°	4007.8	3419.0	1484.0	1023.4	1036.0	968.4	859.9	800.2	775.9	775.9	780.6
40°	4243.5	3488.4	1201.5	1031.6	1070.5	979.1	846.5	766.9	698.2	700.1	703.7
42.5°	4550.7	3548.0	1049.7	1048.6	1112.0	993.6	845.4	722.6	663.0	703.7	740.6
45°	4892.3	3577.9	982.7	1064.2	1145.4	1002.6	831.1	715.5	667.6	788.5	859.0
47.5°	5285.0	3560.6	945.7	1069.4	1153.6	1002.6	814.7	732.7	699.1	913.2	995.5
50°	5716.0	3511.1	909.6	1058.7	1150.9	1000.7	830.1	749.6	710.8	934.8	991.7
52.5°	6222.8	3469.5	871.6	1035.2	1131.7	990.9	848.1	742.5	673.9	850.0	889.7
55°	6800.7	3481.3	829.2	1001.8	1101.9	972.0	841.8	713.5	635.1	748.8	773.2
57.5°	7539.7	3621.3	778.6	959.4	1061.4	940.3	819.4	700.1	623.3	679.4	693.9
60°	8364.3	3865.0	715.5	916.8	1010.8	889.7	802.2	706.4	628.8	673.9	681.0
62.5°	8969.5	4007.0	661.3	854.4	942.2	833.6	780.6	714.4	643.3	692.8	691.1
65°	9133.9	3773.9	593.5	763.3	849.2	775.1	753.2	723.4	649.5	708.1	700.1
66°	8903.6	3522.9	563.7	720.9	802.2	746.1	739.8	722.6	646.8	710.0	696.3
67.5°	8344.6	3007.9	512.3	658.6	727.2	702.9	718.2	714.4	639.4	708.1	689.2
70°	6805.4	2052.3	438.1	548.4	605.2	618.6	676.6	685.7	615.9	676.6	635.1
72.5°	4755.0	1250.1	387.5	425.6	489.6	527.6	619.7	645.7	584.5	590.7	551.1
75°	2297.9	664.0	351.4	329.8	380.2	440.9	551.1	591.6	534.7	494.2	479.7
77.5°	716.3	405.6	298.1	265.6	298.1	355.8	460.6	518.5	476.2	413.8	408.3
80°	384.8	298.1	229.5	213.1	235.8	279.2	362.1	432.7	409.1	371.1	331.5
82.5°	253.8	193.4	169.8	165.2	179.7	213.1	269.1	358.6	358.6	318.1	231.4
85°	131.0	118.4	116.5	116.5	125.5	141.9	183.2	276.5	294.6	167.9	139.2
87.5°	65.1	67.8	63.2	65.9	70.6	69.5	87.5	139.2	166.3	102.0	84.8
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)