

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: P301230

Luminaire Tested: **GLNA-AF-06-LED-E1-T3R-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301230
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-06-LED-E1-T3R-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(6) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20761.1 lumens
Efficiency: N/A
Efficacy: 107.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B2 - U0 - G4

Input Watts (W): 193
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

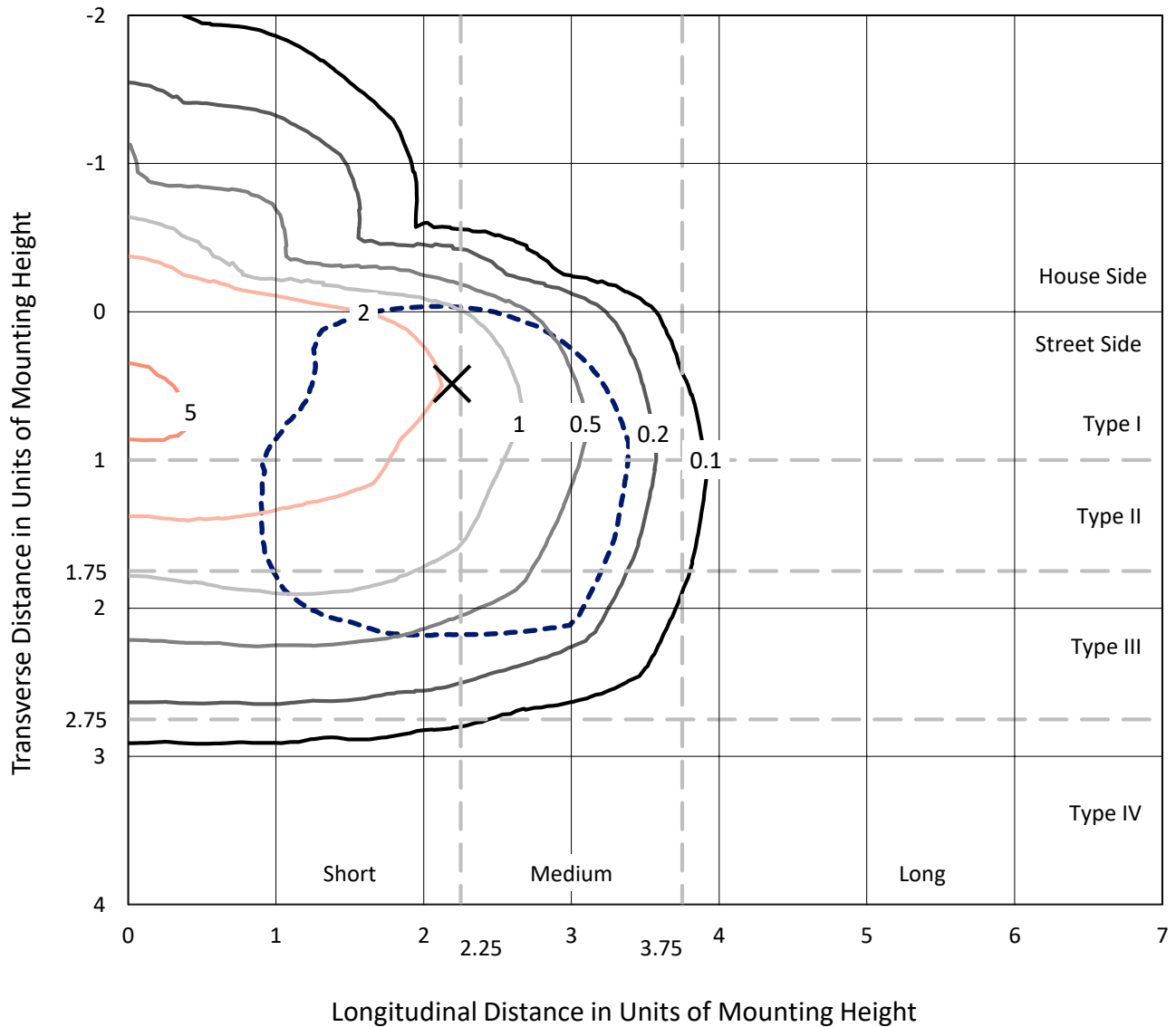


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Iso-Footcandle Lines of Horizontal Illumination

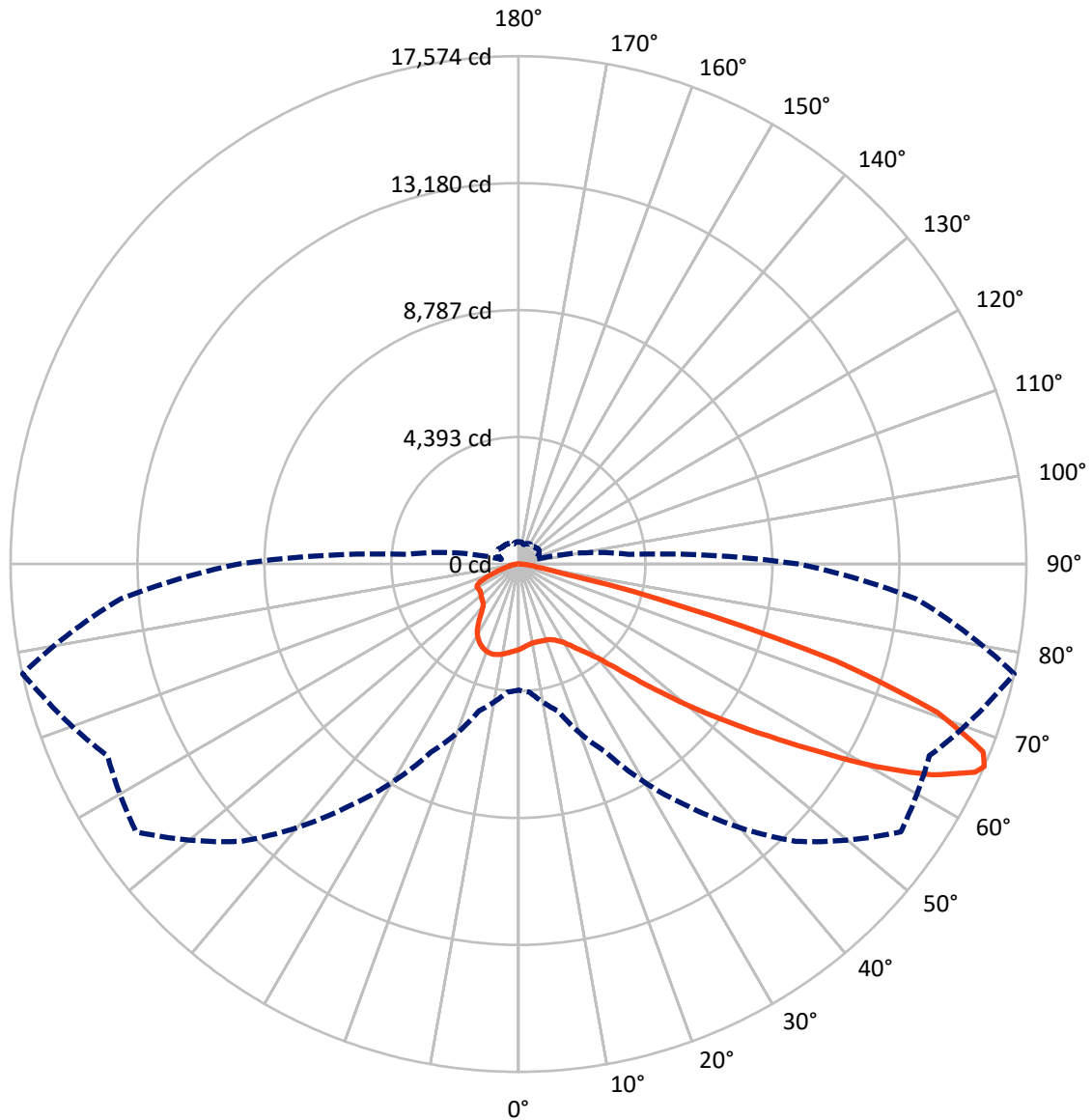
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.8 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	3546.9	0.0	3546.9
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	17214.2	0.0	17214.2
	% Fixture	82.9	0.0	82.9
Total	Lumens	20761.1	0.0	20761.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	264.3	1.3
10°-20°	745.7	3.6
20°-30°	1272.6	6.1
30°-40°	2037.3	9.8
40°-50°	3147.4	15.2
50°-60°	4464.1	21.5
60°-70°	5971.8	28.8
70°-80°	2593.4	12.5
80°-90°	264.4	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°	20761.1	100.0
0°-180°	20761.1	100.0



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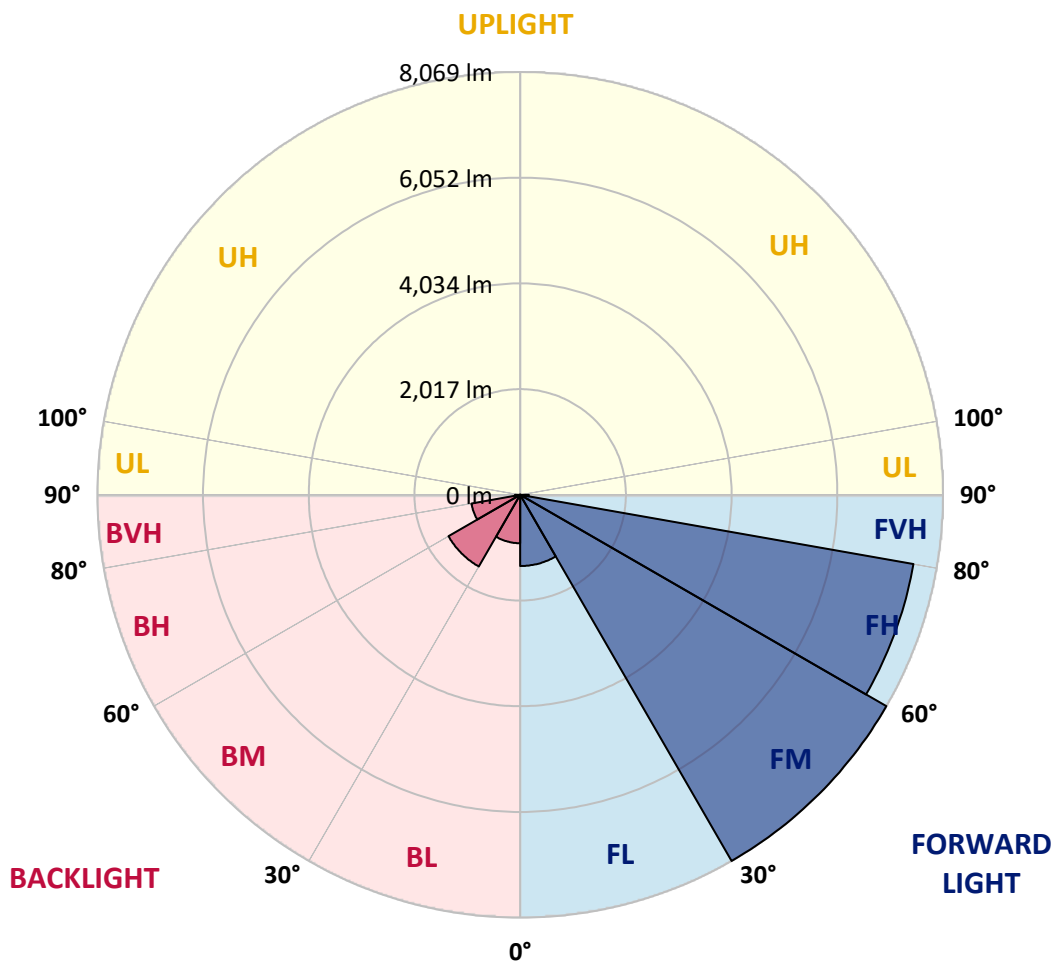
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1358.9	6.5			
FM	(30°-60°)	8068.9	38.9			
FH	(60°-80°)	7620.6	36.7			G4/12000
FVH	(80°-90°)	165.9	0.8			G2/225
BL	(0°-30°)	923.8	4.4	B2/1000		
BM	(30°-60°)	1579.9	7.6	B2/2500		
BH	(60°-80°)	944.6	4.5	B2/1000		G2/1000
BVH	(80°-90°)	98.6	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-G4

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	2958.5	2958.5	2958.5	2958.5	2958.5	2958.5	2958.5	2958.5	2958.5	2958.5	2958.5
2.5°	2617.3	2634.8	2649.6	2663.3	2690.6	2735.8	2787.7	2829.9	2890.8	2902.7	2935.1
5°	2377.0	2377.0	2388.6	2409.4	2446.5	2514.2	2584.9	2679.0	2811.5	2842.7	2929.1
7.5°	2260.3	2261.1	2268.0	2285.5	2317.9	2379.7	2457.2	2568.3	2747.7	2799.6	2946.6
10°	2303.3	2293.5	2278.7	2270.1	2274.8	2311.0	2384.7	2508.3	2708.4	2775.0	2986.2
12.5°	2544.5	2526.1	2475.0	2407.3	2342.5	2316.1	2359.2	2479.7	2691.8	2769.3	3038.1
15°	2938.9	2931.2	2835.9	2695.7	2538.9	2407.3	2377.9	2469.1	2693.6	2776.2	3099.9
17.5°	3433.5	3422.5	3297.1	3093.1	2837.1	2581.0	2443.5	2478.0	2700.4	2787.7	3159.6
20°	3932.7	3899.2	3764.0	3520.8	3192.0	2817.2	2552.5	2500.5	2709.3	2800.5	3222.6
22.5°	4305.5	4277.9	4156.4	3920.0	3541.3	3091.0	2698.6	2539.7	2737.9	2837.9	3299.8
25°	4633.1	4634.9	4514.3	4285.9	3894.4	3381.5	2886.9	2644.6	2810.3	2914.3	3405.8
27.5°	5038.2	5014.7	4901.9	4675.3	4243.7	3674.6	3114.5	2788.9	2918.4	3023.3	3545.1
30°	5522.6	5506.0	5375.6	5118.7	4631.0	3989.5	3374.3	2956.5	3057.7	3166.4	3727.5
32.5°	6092.6	6084.9	5949.4	5618.9	5078.3	4360.4	3679.7	3178.3	3265.6	3378.5	3989.5
35°	6761.8	6762.7	6602.9	6205.5	5567.8	4792.0	4025.7	3463.7	3518.7	3636.3	4301.6
37.5°	7173.7	7223.6	7163.9	6758.8	6122.0	5274.6	4475.1	3842.4	3807.1	3925.9	4636.0
40°	7261.9	7322.8	7512.0	7306.2	6742.2	5806.3	4873.4	4206.3	4162.3	4307.3	5066.7
42.5°	7138.4	7222.7	7623.1	7768.0	7400.3	6461.5	5408.9	4746.8	4691.0	4886.1	5602.2
45°	7064.7	7127.7	7590.7	8008.6	7971.2	7202.2	6090.8	5425.5	5405.0	5661.0	6220.3
47.5°	6937.3	6994.3	7439.5	8064.5	8306.8	7880.9	6910.0	6255.7	6295.7	6631.4	6917.7
50°	7005.9	7029.4	7270.8	7922.2	8403.9	8378.4	7825.1	7216.8	7354.3	7773.1	7707.4
52.5°	6996.1	7057.0	7251.2	7688.7	8416.7	8685.5	8726.5	8289.0	8578.6	9059.1	8583.3
55°	5656.3	5768.0	7020.8	7629.9	8461.6	8986.4	9529.0	9419.1	9958.5	10518.7	9572.1
57.5°	5401.2	5471.8	6166.3	7753.5	8700.9	9561.4	10421.5	10663.0	11565.3	12215.8	10776.8
60°	5351.0	5438.3	6157.3	7904.7	9186.6	10498.2	11745.0	12168.8	13520.5	14232.8	12173.6
62.5°	5195.0	5289.2	6099.4	7884.8	9876.2	11794.0	13439.2	13769.7	15374.5	16067.1	13342.0
65°	4700.8	4789.0	5627.8	7568.1	10341.3	13177.2	15444.0	15237.3	16838.2	17358.8	13924.5
66°	4362.2	4448.6	5255.9	7195.4	10233.2	13569.6	16154.4	15691.4	17165.8	17573.9	13810.7
67.5°	3743.2	3811.0	4533.9	6360.5	9659.4	13679.4	16751.7	16032.7	17199.9	17344.3	13160.6
70°	2365.1	2384.7	2946.6	4390.7	7312.1	11863.5	15842.3	15185.3	15781.7	15391.1	11032.8
72.5°	1026.2	1019.3	1414.7	2233.5	4139.7	7960.5	12815.1	12529.7	12379.7	11489.0	7723.2
75°	570.9	578.9	734.8	1036.9	1682.3	3910.2	8383.1	8022.3	6773.3	5779.8	3502.1
77.5°	458.0	469.0	609.2	735.7	755.3	1363.6	3922.9	3192.0	1921.7	1542.1	973.0
80°	362.1	381.7	531.7	572.9	509.1	561.9	1267.3	1013.4	760.3	697.4	504.3
82.5°	286.3	300.3	456.2	433.6	356.1	378.7	607.1	591.6	494.5	450.3	291.4
85°	206.1	231.4	374.8	326.7	233.5	255.1	403.0	386.4	283.3	231.4	128.6
87.5°	84.4	109.9	264.9	216.8	130.4	118.8	201.1	189.2	134.2	98.0	63.9
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°	2958.5	2958.5	2958.5	2958.5	2958.5	2958.5	2958.5	2958.5	2958.5	2958.5	2958.5
2.5°	2955.6	2979.0	3009.6	3028.3	3038.1	3045.0	3055.7	3054.8	3057.7	3058.6	3062.5
5°	2975.2	3014.4	3058.6	3070.5	3070.5	3059.5	3048.8	3031.0	3024.2	3022.4	3024.2
7.5°	3026.2	3069.3	3107.6	3094.0	3064.6	3021.2	2965.4	2916.4	2889.9	2881.0	2879.2
10°	3091.0	3143.0	3158.7	3106.7	3020.3	2916.4	2805.6	2725.1	2679.0	2666.3	2662.4
12.5°	3169.4	3218.4	3197.0	3087.1	2927.0	2759.5	2606.3	2478.0	2381.7	2351.4	2349.4
15°	3255.8	3294.2	3218.4	3026.2	2787.7	2540.6	2268.0	2046.4	1926.7	1888.4	1885.4
17.5°	3336.3	3355.9	3205.6	2920.2	2582.8	2182.7	1820.7	1649.9	1608.9	1618.7	1620.5
20°	3404.9	3404.9	3162.6	2768.1	2260.3	1710.8	1482.1	1479.4	1508.8	1538.2	1544.2
22.5°	3480.4	3435.2	3087.1	2553.4	1802.9	1399.8	1366.5	1393.9	1427.1	1459.5	1464.6
25°	3573.6	3459.9	2982.0	2227.9	1417.3	1271.2	1284.0	1306.6	1323.2	1344.0	1346.9
27.5°	3677.6	3491.1	2843.9	1779.4	1230.2	1191.0	1200.8	1208.5	1206.5	1214.5	1216.3
30°	3802.0	3527.6	2654.4	1390.9	1152.7	1122.1	1104.6	1097.8	1097.8	1110.5	1115.3
32.5°	3969.0	3581.4	2382.6	1191.9	1115.3	1073.1	1016.4	990.8	1000.6	1043.7	1053.5
35°	4152.5	3639.3	2014.9	1124.2	1107.6	1050.5	962.3	915.1	916.3	956.4	969.1
37.5°	4352.4	3712.9	1611.6	1111.4	1125.1	1051.7	933.8	869.1	842.6	842.6	847.7
40°	4608.4	3788.4	1304.8	1120.3	1162.5	1063.3	919.2	832.8	758.3	760.3	764.2
42.5°	4942.0	3853.1	1139.9	1138.7	1207.6	1079.0	918.1	784.7	720.0	764.2	804.3
45°	5312.9	3885.5	1067.2	1155.7	1243.9	1088.8	902.6	777.0	725.0	856.3	932.9
47.5°	5739.4	3866.8	1027.1	1161.3	1252.8	1088.8	884.8	795.7	759.2	991.7	1081.1
50°	6207.5	3813.0	987.9	1149.7	1249.8	1086.8	901.4	814.1	771.9	1015.2	1077.0
52.5°	6757.9	3767.9	946.6	1124.2	1229.0	1076.1	921.0	806.4	731.8	923.1	966.2
55°	7385.5	3780.7	900.5	1088.0	1196.7	1055.6	914.2	774.9	689.7	813.2	839.7
57.5°	8188.0	3932.7	845.6	1041.9	1152.7	1021.1	889.8	760.3	676.9	737.8	753.5
60°	9083.5	4197.4	777.0	995.6	1097.8	966.2	871.1	767.2	682.8	731.8	739.6
62.5°	9740.8	4351.5	718.2	927.9	1023.2	905.3	847.7	775.8	698.6	752.3	750.5
65°	9919.3	4098.5	644.5	829.0	922.2	841.7	818.0	785.6	705.4	769.0	760.3
66°	9669.2	3825.8	612.1	782.9	871.1	810.2	803.4	784.7	702.4	771.0	756.2
67.5°	9062.1	3266.5	556.3	715.2	789.8	763.3	780.0	775.8	694.4	769.0	748.5
70°	7390.5	2228.8	475.8	595.5	657.3	671.8	734.8	744.6	668.9	734.8	689.7
72.5°	5163.8	1357.6	420.9	462.1	531.7	572.9	673.0	701.2	634.7	641.5	598.5
75°	2495.5	721.1	381.7	358.2	412.8	478.8	598.5	642.4	580.7	536.7	521.0
77.5°	777.9	440.5	323.7	288.4	323.7	386.4	500.2	563.1	517.1	449.4	443.4
80°	417.9	323.7	249.2	231.4	256.0	303.2	393.2	469.9	444.3	403.0	360.0
82.5°	275.6	210.0	184.4	179.4	195.1	231.4	292.3	389.4	389.4	345.4	251.3
85°	142.3	128.6	126.5	126.5	136.3	154.1	199.0	300.3	319.9	182.4	151.2
87.5°	70.7	73.7	68.6	71.6	76.6	75.4	95.0	151.2	180.6	110.8	92.1
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)