

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: P301168

Luminaire Tested: **GLNA-AF-05-LED-E1-T3R-7050-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301168
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-05-LED-E1-T3R-7050-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 5000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24488 lumens
Efficiency: N/A
Efficacy: 116.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B3 - U0 - G4

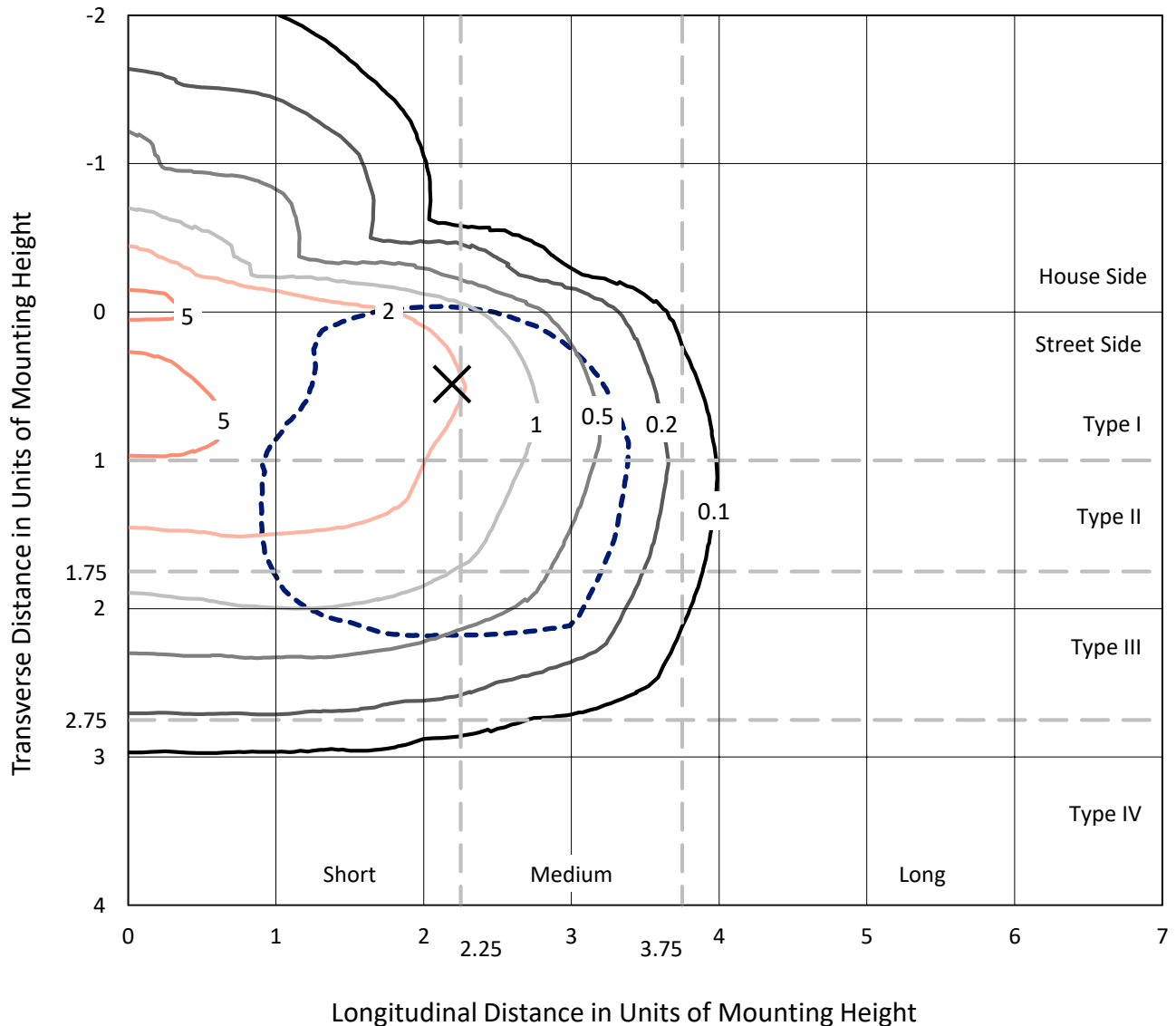
Input Watts (W): 210
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

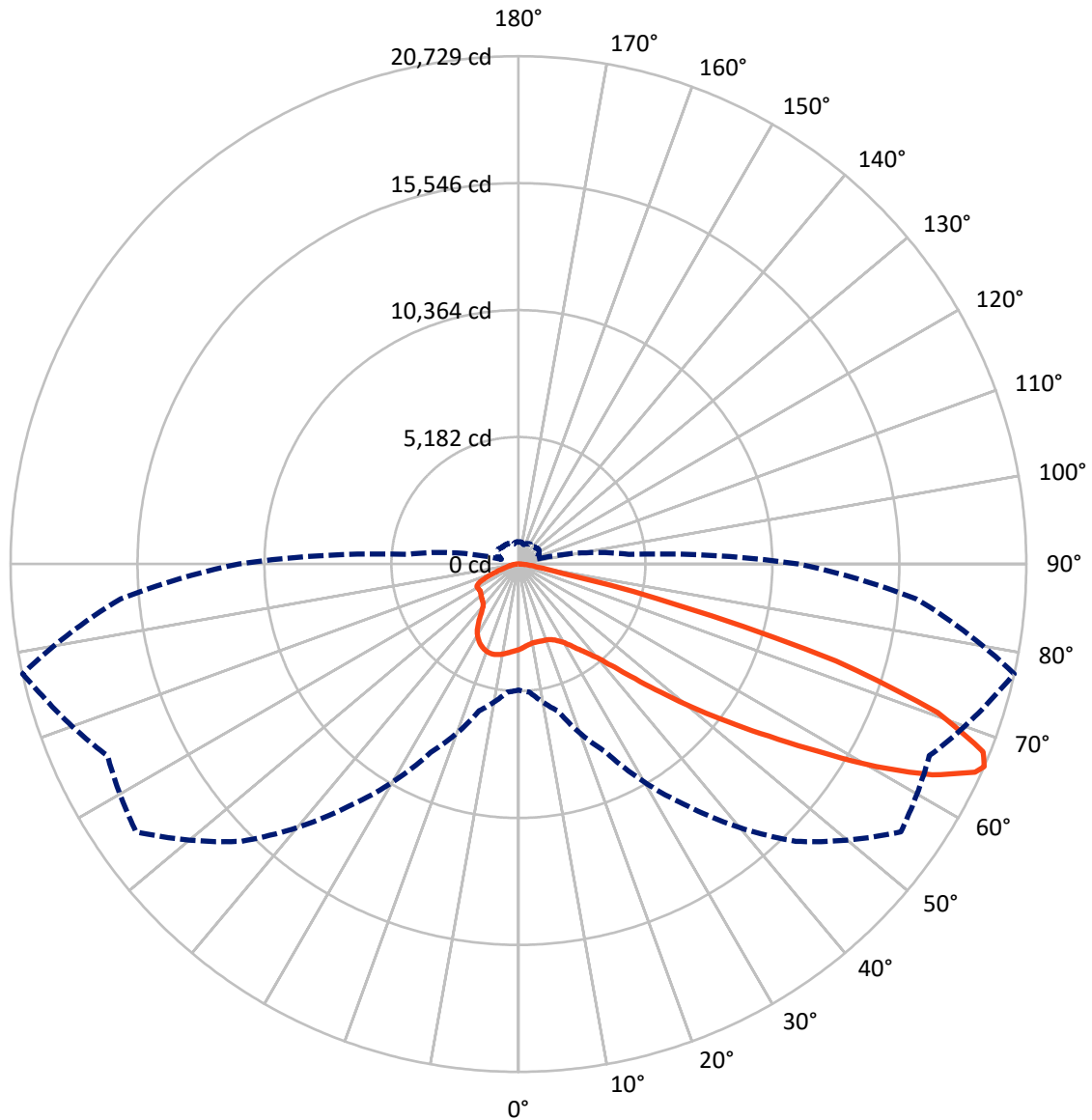
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.9 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	4183.6	0.0	4183.6
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	20304.3	0.0	20304.3
	% Fixture	82.9	0.0	82.9
Total	Lumens	24488.0	0.0	24488.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	311.8	1.3
10°-20°	879.6	3.6
20°-30°	1501.1	6.1
30°-40°	2403.0	9.8
40°-50°	3712.4	15.2
50°-60°	5265.5	21.5
60°-70°	7043.8	28.8
70°-80°	3059.0	12.5
80°-90°	311.9	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°	24488.0	100.0
0°-180°	24488.0	100.0



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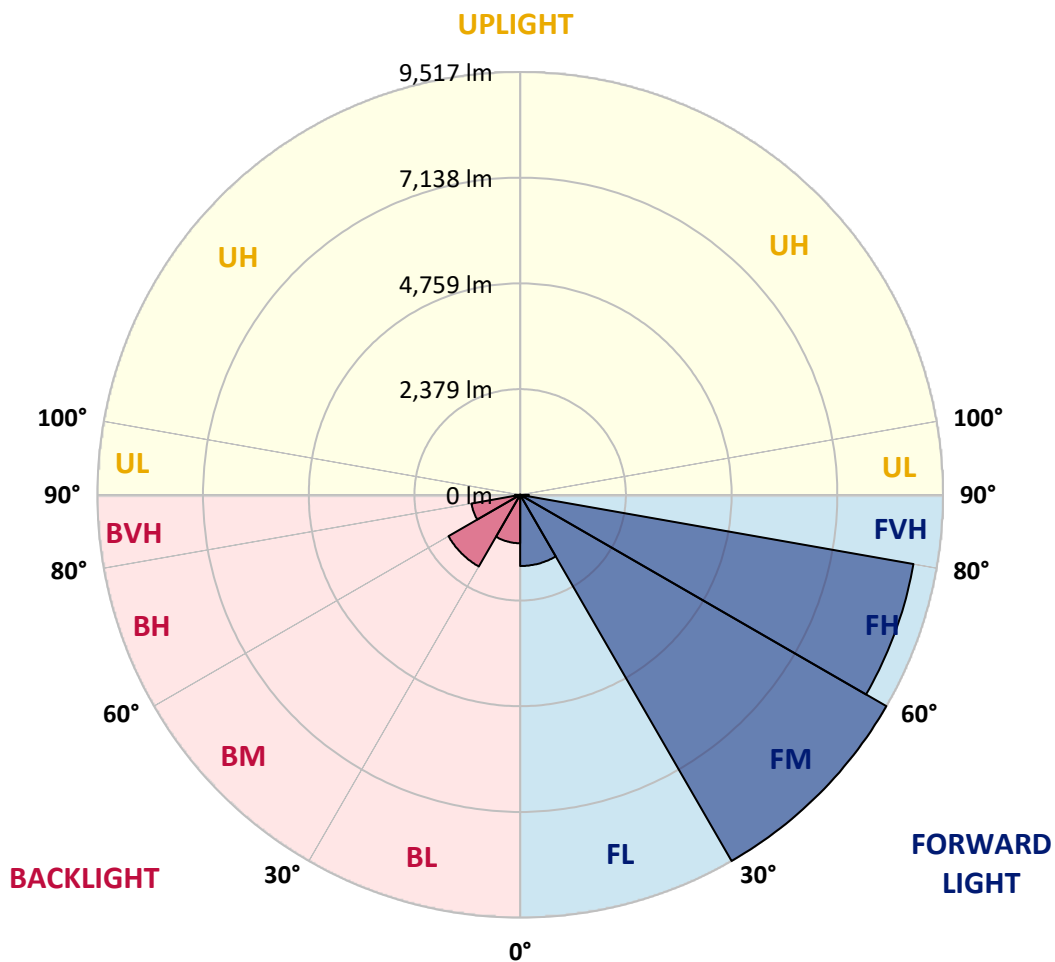
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1602.8	6.5			
FM	(30°-60°)	9517.3	38.9			
FH	(60°-80°)	8988.6	36.7			G4/12000
FVH	(80°-90°)	195.6	0.8			G2/225
BL	(0°-30°)	1089.6	4.4	B3/2500		
BM	(30°-60°)	1863.6	7.6	B2/2500		
BH	(60°-80°)	1114.2	4.5	B3/2500		G3/2500
BVH	(80°-90°)	116.3	0.5			G2/225
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 Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	3489.6	3489.6	3489.6	3489.6	3489.6	3489.6	3489.6	3489.6	3489.6	3489.6	3489.6
2.5°	3087.1	3107.8	3125.3	3141.4	3173.6	3226.9	3288.2	3337.9	3409.7	3423.8	3461.9
5°	2803.7	2803.7	2817.3	2841.9	2885.6	2965.5	3048.9	3160.0	3316.2	3353.0	3454.9
7.5°	2666.0	2667.0	2675.1	2695.8	2734.0	2806.8	2898.3	3029.3	3240.9	3302.2	3475.6
10°	2716.8	2705.2	2687.7	2677.6	2683.2	2725.9	2812.8	2958.5	3194.6	3273.1	3522.2
12.5°	3001.3	2979.5	2919.3	2839.4	2763.0	2731.9	2782.7	2924.9	3175.0	3266.5	3583.5
15°	3466.5	3457.4	3344.9	3179.6	2994.6	2839.4	2804.7	2912.3	3177.1	3274.5	3656.4
17.5°	4049.8	4036.8	3889.0	3648.3	3346.3	3044.3	2882.1	2922.8	3185.2	3288.2	3726.8
20°	4638.7	4599.1	4439.7	4152.8	3765.0	3322.9	3010.7	2949.4	3195.7	3303.2	3801.1
22.5°	5078.3	5045.8	4902.5	4623.6	4177.0	3645.9	3183.1	2995.7	3229.3	3347.4	3892.1
25°	5464.8	5466.9	5324.6	5055.2	4593.5	3988.5	3405.2	3119.3	3314.8	3437.4	4017.2
27.5°	5942.6	5914.9	5781.8	5514.5	5005.5	4334.3	3673.5	3289.6	3442.3	3566.0	4181.5
30°	6514.0	6494.4	6340.6	6037.5	5462.3	4705.6	3980.1	3487.2	3606.6	3734.8	4396.6
32.5°	7186.3	7177.2	7017.4	6627.5	5989.9	5143.2	4340.2	3748.9	3851.9	3985.0	4705.6
35°	7975.6	7976.6	7788.1	7319.4	6567.2	5652.2	4748.3	4085.5	4150.3	4289.1	5073.8
37.5°	8461.5	8520.3	8449.9	7972.1	7221.0	6221.5	5278.4	4532.2	4490.5	4630.6	5468.3
40°	8565.5	8637.3	8860.5	8617.7	7952.4	6848.6	5748.2	4961.3	4909.5	5080.4	5976.2
42.5°	8419.8	8519.3	8991.5	9162.5	8728.8	7621.4	6379.8	5598.9	5533.1	5763.2	6607.9
45°	8332.9	8407.2	8953.3	9446.2	9402.1	8495.1	7184.2	6399.4	6375.3	6677.2	7336.9
47.5°	8182.6	8249.9	8775.0	9512.1	9798.0	9295.6	8150.4	7378.6	7425.9	7821.8	8159.5
50°	8263.5	8291.2	8576.0	9344.3	9912.5	9882.4	9229.7	8512.3	8674.5	9168.4	9091.0
52.5°	8252.0	8323.8	8552.9	9068.9	9927.6	10244.6	10293.0	9776.9	10118.5	10685.3	10124.1
55°	6671.6	6803.4	8281.0	8999.6	9980.5	10599.5	11239.6	11109.9	11746.1	12406.8	11290.4
57.5°	6370.7	6454.1	7273.1	9145.3	10262.8	11277.7	12292.3	12577.1	13641.4	14408.6	12711.3
60°	6311.5	6414.5	7262.6	9323.6	10835.6	12382.7	13853.4	14353.3	15947.6	16787.7	14358.9
62.5°	6127.6	6238.6	7194.3	9300.1	11649.1	13911.2	15851.6	16241.5	18134.4	18951.3	15737.1
65°	5544.6	5648.7	6638.0	8926.7	12197.7	15542.6	18216.3	17972.5	19860.8	20474.9	16424.1
66°	5145.3	5247.2	6199.4	8487.0	12070.2	16005.4	19054.3	18508.2	20247.2	20728.5	16289.9
67.5°	4415.2	4495.1	5347.7	7502.3	11393.4	16135.0	19758.8	18910.7	20287.5	20457.7	15523.0
70°	2789.7	2812.8	3475.6	5178.9	8624.7	13993.1	18686.1	17911.2	18614.7	18154.0	13013.3
72.5°	1210.4	1202.3	1668.6	2634.5	4882.9	9389.5	15115.6	14778.9	14602.0	13551.4	9109.6
75°	673.3	682.8	866.7	1223.0	1984.3	4612.1	9888.0	9462.3	7989.2	6817.4	4130.7
77.5°	540.2	553.2	718.5	867.8	890.9	1608.4	4627.1	3765.0	2266.6	1818.9	1147.7
80°	427.0	450.2	627.1	675.8	600.5	662.8	1494.8	1195.3	896.8	822.6	594.9
82.5°	337.7	354.2	538.1	511.5	420.0	446.7	716.1	697.9	583.3	531.1	343.7
85°	243.1	272.9	442.1	385.4	275.4	300.9	475.4	455.8	334.2	272.9	151.7
87.5°	99.5	129.6	312.5	255.7	153.8	140.1	237.2	223.2	158.3	115.6	75.3
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°	3489.6	3489.6	3489.6	3489.6	3489.6	3489.6	3489.6	3489.6	3489.6	3489.6	3489.6
2.5°	3486.1	3513.8	3549.9	3571.9	3583.5	3591.6	3604.2	3603.1	3606.6	3607.7	3612.2
5°	3509.2	3555.5	3607.7	3621.7	3621.7	3608.7	3596.1	3575.1	3567.0	3564.9	3567.0
7.5°	3569.5	3620.3	3665.5	3649.4	3614.7	3563.5	3497.7	3439.9	3408.7	3398.2	3396.1
10°	3645.9	3707.2	3725.7	3664.4	3562.5	3439.9	3309.2	3214.3	3160.0	3144.9	3140.3
12.5°	3738.3	3796.1	3770.9	3641.3	3452.5	3254.9	3074.1	2922.8	2809.3	2773.5	2771.1
15°	3840.3	3885.5	3796.1	3569.5	3288.2	2996.7	2675.1	2413.8	2272.6	2227.4	2223.9
17.5°	3935.2	3958.4	3781.1	3444.4	3046.4	2574.6	2147.5	1946.1	1897.7	1909.3	1911.4
20°	4016.2	4016.2	3730.3	3265.1	2666.0	2017.9	1748.1	1745.0	1779.7	1814.3	1821.4
22.5°	4105.1	4051.9	3641.3	3011.8	2126.5	1651.1	1611.9	1644.1	1683.3	1721.5	1727.5
25°	4215.1	4081.0	3517.3	2627.8	1671.8	1499.4	1514.5	1541.1	1560.7	1585.2	1588.7
27.5°	4337.8	4117.7	3354.4	2098.8	1451.1	1404.8	1416.4	1425.5	1423.0	1432.5	1434.6
30°	4484.5	4160.8	3130.9	1640.6	1359.6	1323.5	1302.9	1294.8	1294.8	1309.9	1315.5
32.5°	4681.4	4224.2	2810.3	1405.9	1315.5	1265.7	1198.8	1168.7	1180.3	1231.1	1242.6
35°	4897.9	4292.6	2376.6	1326.0	1306.4	1239.1	1135.1	1079.4	1080.8	1128.1	1143.1
37.5°	5133.7	4379.4	1900.9	1310.9	1327.0	1240.5	1101.4	1025.1	993.9	993.9	999.8
40°	5435.7	4468.4	1539.0	1321.4	1371.2	1254.2	1084.3	982.3	894.4	896.8	901.4
42.5°	5829.1	4544.8	1344.6	1343.2	1424.4	1272.7	1082.9	925.6	849.2	901.4	948.7
45°	6266.7	4583.0	1258.7	1363.1	1467.2	1284.3	1064.6	916.5	855.1	1010.0	1100.4
47.5°	6769.7	4560.9	1211.4	1369.8	1477.7	1284.3	1043.6	938.5	895.4	1169.7	1275.2
50°	7321.8	4497.5	1165.2	1356.1	1474.2	1281.8	1063.2	960.2	910.5	1197.4	1270.3
52.5°	7971.0	4444.3	1116.5	1326.0	1449.7	1269.2	1086.4	951.1	863.2	1088.8	1139.6
55°	8711.2	4459.3	1062.2	1283.2	1411.5	1245.1	1078.3	914.0	813.5	959.2	990.4
57.5°	9657.8	4638.7	997.4	1228.9	1359.6	1204.4	1049.6	896.8	798.4	870.2	888.8
60°	10714.1	4950.8	916.5	1174.3	1294.8	1139.6	1027.5	904.9	805.4	863.2	872.3
62.5°	11489.3	5132.6	847.1	1094.4	1206.9	1067.8	999.8	915.1	824.0	887.4	885.3
65°	11699.9	4834.2	760.2	977.8	1087.8	992.8	964.8	926.6	832.0	907.0	896.8
66°	11404.9	4512.6	722.0	923.5	1027.5	955.7	947.6	925.6	828.5	909.5	891.9
67.5°	10688.8	3852.9	656.2	843.6	931.5	900.3	920.0	915.1	819.1	907.0	882.8
70°	8717.2	2628.9	561.2	702.4	775.3	792.4	866.7	878.3	788.9	866.7	813.5
72.5°	6090.8	1601.3	496.4	545.1	627.1	675.8	793.8	827.1	748.6	756.7	705.9
75°	2943.5	850.6	450.2	422.5	487.0	564.7	705.9	757.8	684.9	633.0	614.5
77.5°	917.5	519.5	381.9	340.2	381.9	455.8	590.0	664.2	609.9	530.0	523.0
80°	492.9	381.9	293.9	272.9	302.0	357.7	463.8	554.2	524.1	475.4	424.6
82.5°	325.1	247.7	217.6	211.6	230.2	272.9	344.7	459.3	459.3	407.4	296.4
85°	167.8	151.7	149.2	149.2	160.8	181.8	234.7	354.2	377.3	215.1	178.3
87.5°	83.4	86.9	80.9	84.4	90.4	89.0	112.1	178.3	213.0	130.7	108.6
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)