

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: P301165

Luminaire Tested: **GLNA-AF-05-LED-E1-T3R-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301165
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-7030-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 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: 23686.7 lumens
Efficiency: N/A
Efficacy: 112.8 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

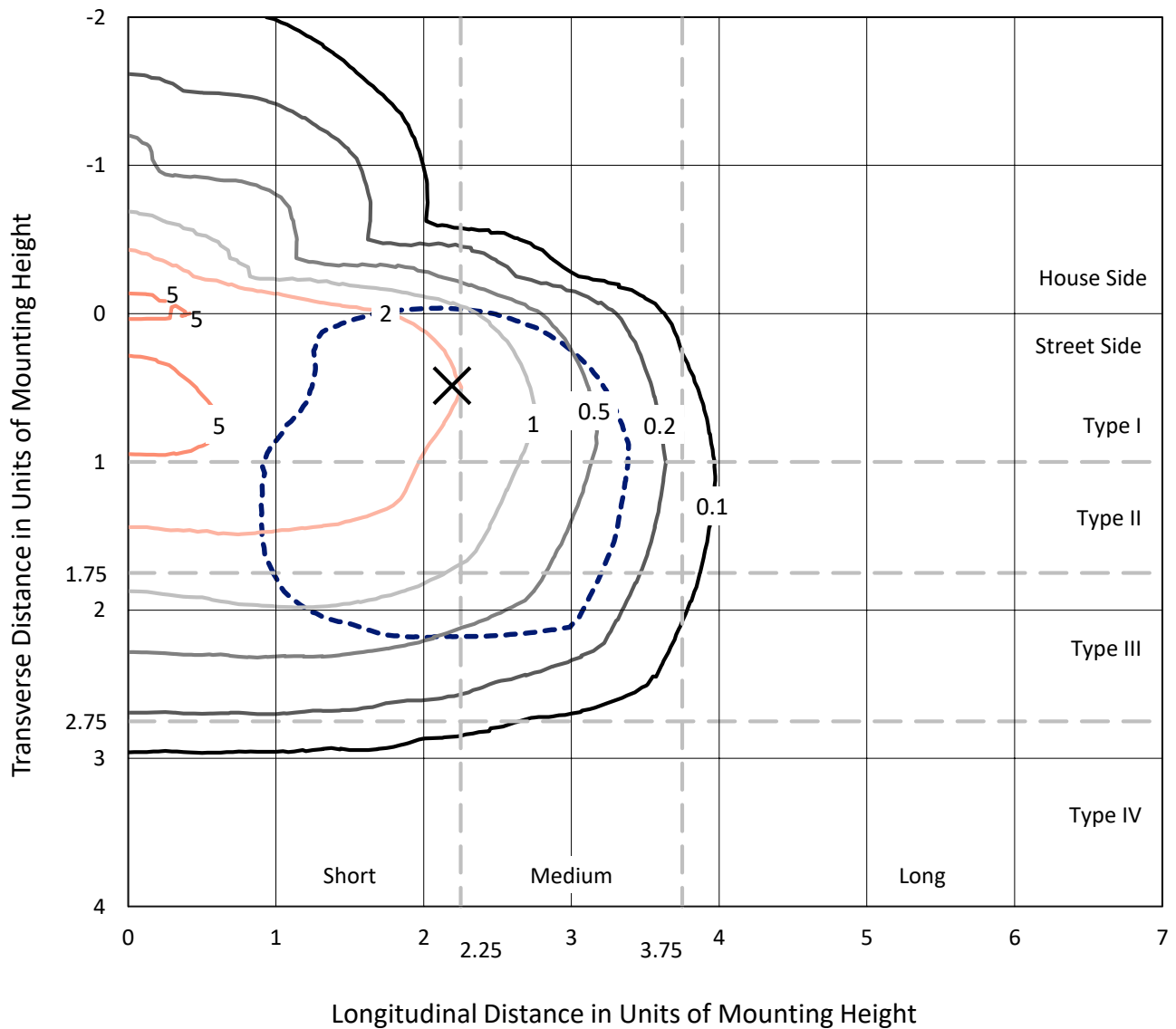
Input Watts (W): 210
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

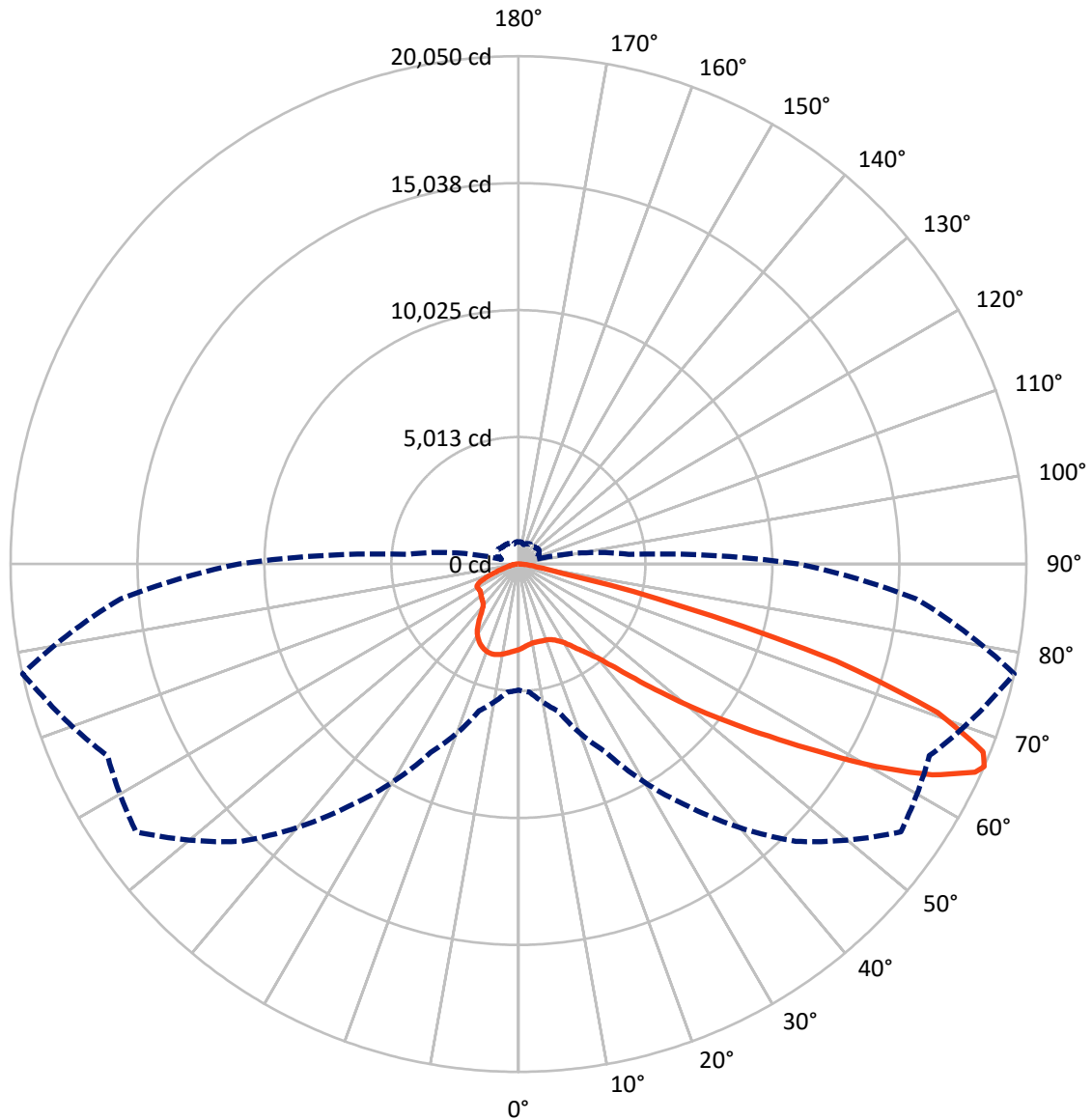
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.7 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	4046.7	0.0	4046.7
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	19639.9	0.0	19639.9
	% Fixture	82.9	0.0	82.9
Total	Lumens	23686.7	0.0	23686.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	301.6	1.3
10°-20°	850.8	3.6
20°-30°	1452.0	6.1
30°-40°	2324.4	9.8
40°-50°	3590.9	15.2
50°-60°	5093.2	21.5
60°-70°	6813.3	28.8
70°-80°	2958.9	12.5
80°-90°	301.7	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°	23686.7	100.0
0°-180°	23686.7	100.0



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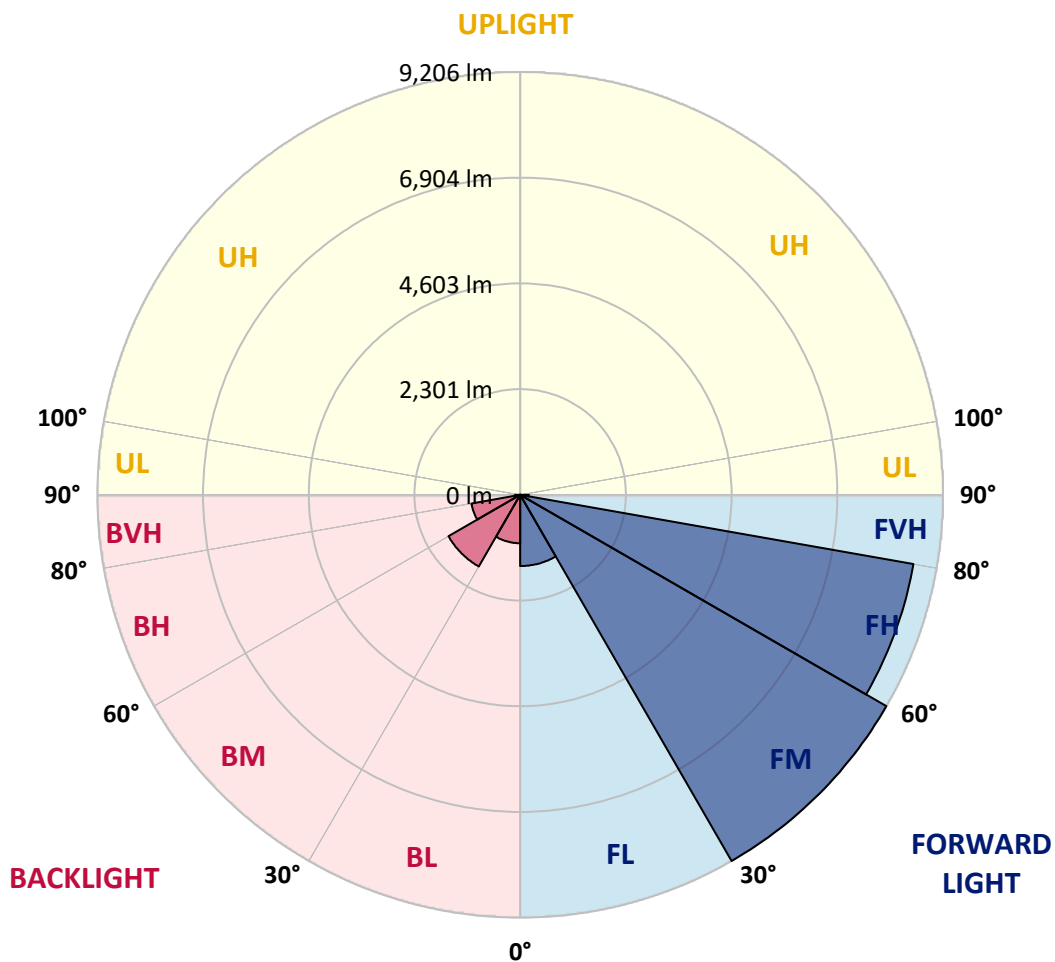
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1550.4	6.5			
FM	(30°-60°)	9205.9	38.9			
FH	(60°-80°)	8694.4	36.7			G4/12000
FVH	(80°-90°)	189.2	0.8			G2/225
BL	(0°-30°)	1053.9	4.4	B3/2500		
BM	(30°-60°)	1802.6	7.6	B2/2500		
BH	(60°-80°)	1077.7	4.5	B3/2500		G3/2500
BVH	(80°-90°)	112.5	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°	3375.4	3375.4	3375.4	3375.4	3375.4	3375.4	3375.4	3375.4	3375.4	3375.4	3375.4
2.5°	2986.1	3006.1	3023.0	3038.6	3069.8	3121.3	3180.6	3228.7	3298.2	3311.7	3348.7
5°	2711.9	2711.9	2725.1	2748.9	2791.2	2868.5	2949.1	3056.6	3207.7	3243.3	3341.9
7.5°	2578.8	2579.8	2587.6	2607.6	2644.5	2715.0	2803.4	2930.2	3134.8	3194.1	3361.9
10°	2627.9	2616.7	2599.8	2589.9	2595.4	2636.7	2720.7	2861.7	3090.1	3166.0	3406.9
12.5°	2903.1	2882.0	2823.8	2746.5	2672.6	2642.5	2691.6	2829.2	3071.1	3159.6	3466.2
15°	3353.1	3344.3	3235.5	3075.5	2896.6	2746.5	2712.9	2817.0	3073.2	3167.4	3536.7
17.5°	3917.3	3904.7	3761.7	3528.9	3236.8	2944.7	2787.8	2827.1	3081.0	3180.6	3604.8
20°	4486.9	4448.6	4294.4	4016.9	3641.8	3214.1	2912.2	2852.9	3091.1	3195.2	3676.7
22.5°	4912.2	4880.7	4742.1	4472.3	4040.3	3526.6	3078.9	2897.6	3123.7	3237.9	3764.8
25°	5285.9	5288.0	5150.4	4889.8	4443.2	3858.0	3293.8	3017.2	3206.3	3324.9	3885.8
27.5°	5748.2	5721.4	5592.6	5334.1	4841.7	4192.4	3553.3	3181.9	3329.7	3449.3	4044.7
30°	6300.8	6281.9	6133.1	5840.0	5283.6	4551.6	3849.8	3373.1	3488.6	3612.6	4252.7
32.5°	6951.1	6942.3	6787.8	6410.6	5793.9	4974.9	4198.2	3626.2	3725.8	3854.6	4551.6
35°	7714.6	7715.6	7533.3	7079.9	6352.4	5467.2	4593.0	3951.8	4014.5	4148.7	4907.8
37.5°	8184.6	8241.5	8173.4	7711.2	6984.7	6017.9	5105.7	4383.9	4343.6	4479.1	5289.3
40°	8285.2	8354.7	8570.6	8335.7	7692.2	6624.5	5560.1	4799.0	4748.8	4914.2	5780.7
42.5°	8144.3	8240.5	8697.3	8862.7	8443.1	7372.0	6171.1	5415.7	5352.0	5574.7	6391.7
45°	8060.2	8132.1	8660.4	9137.1	9094.4	8217.1	6949.1	6190.0	6166.7	6458.8	7096.8
47.5°	7914.9	7979.9	8487.9	9200.8	9477.4	8991.4	7883.7	7137.2	7182.9	7565.8	7892.5
50°	7993.1	8019.9	8295.4	9038.5	9588.2	9559.0	8927.7	8233.7	8390.6	8868.4	8793.5
52.5°	7982.0	8051.4	8273.0	8772.2	9602.7	9909.4	9956.2	9457.0	9787.4	10335.7	9792.8
55°	6453.3	6580.7	8010.1	8705.1	9653.9	10252.7	10871.8	10746.4	11361.8	12000.9	10920.9
57.5°	6162.3	6242.9	7035.2	8846.1	9927.0	10908.7	11890.1	12165.6	13195.0	13937.2	12295.4
60°	6105.0	6204.6	7025.0	9018.5	10481.1	11977.5	13400.1	13883.6	15425.8	16238.4	13889.0
62.5°	5927.1	6034.5	6958.9	8995.8	11267.9	13456.0	15332.9	15710.1	17541.0	18331.2	15222.1
65°	5363.2	5463.9	6420.8	8634.6	11798.6	15034.1	17620.3	17384.4	19210.9	19804.9	15886.6
66°	4976.9	5075.5	5996.5	8209.3	11675.2	15481.7	18430.8	17902.6	19584.7	20050.3	15756.9
67.5°	4270.7	4348.0	5172.8	7256.8	11020.6	15607.1	19112.3	18291.9	19623.6	19788.3	15015.1
70°	2698.4	2720.7	3361.9	5009.4	8342.5	13535.3	18074.7	17325.1	18005.6	17560.0	12587.5
72.5°	1170.8	1163.0	1614.0	2548.3	4723.1	9082.2	14621.0	14295.3	14124.2	13108.0	8811.5
75°	651.3	660.4	838.4	1183.0	1919.3	4461.2	9564.5	9152.7	7727.8	6594.3	3995.6
77.5°	522.5	535.1	695.0	839.4	861.7	1555.7	4475.7	3641.8	2192.5	1759.4	1110.1
80°	413.1	435.4	606.6	653.7	580.8	641.1	1445.9	1156.2	867.5	795.7	575.4
82.5°	326.7	342.6	520.5	494.7	406.3	432.1	692.6	675.0	564.2	513.7	332.4
85°	235.2	264.0	427.6	372.8	266.3	291.1	459.8	440.9	323.3	264.0	146.7
87.5°	96.2	125.4	302.3	247.4	148.8	135.5	229.4	215.9	153.2	111.8	72.9
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°	3375.4	3375.4	3375.4	3375.4	3375.4	3375.4	3375.4	3375.4	3375.4	3375.4	3375.4
2.5°	3372.0	3398.8	3433.7	3455.1	3466.2	3474.0	3486.2	3485.2	3488.6	3489.6	3494.0
5°	3394.4	3439.1	3489.6	3503.2	3503.2	3490.6	3478.4	3458.1	3450.3	3448.3	3450.3
7.5°	3452.7	3501.8	3545.5	3530.0	3496.4	3446.9	3383.2	3327.3	3297.2	3287.0	3285.0
10°	3526.6	3585.9	3603.8	3544.5	3445.9	3327.3	3200.9	3109.1	3056.6	3042.0	3037.6
12.5°	3616.0	3671.9	3647.5	3522.2	3339.5	3148.4	2973.5	2827.1	2717.4	2682.8	2680.4
15°	3714.6	3758.3	3671.9	3452.7	3180.6	2898.6	2587.6	2334.8	2198.2	2154.5	2151.1
17.5°	3806.5	3828.8	3657.4	3331.7	2946.8	2490.3	2077.2	1882.4	1835.6	1846.8	1848.8
20°	3884.7	3884.7	3608.2	3158.2	2578.8	1951.9	1690.9	1687.9	1721.4	1755.0	1761.8
22.5°	3970.8	3919.3	3522.2	2913.2	2056.9	1597.1	1559.1	1590.3	1628.2	1665.2	1670.9
25°	4077.2	3947.4	3402.2	2541.8	1617.1	1450.3	1464.9	1490.7	1509.6	1533.4	1536.8
27.5°	4195.8	3983.0	3244.6	2030.1	1403.6	1358.8	1370.0	1378.8	1376.5	1385.6	1387.7
30°	4337.8	4024.7	3028.4	1586.9	1315.1	1280.2	1260.2	1252.4	1252.4	1267.0	1272.4
32.5°	4528.2	4086.0	2718.4	1359.9	1272.4	1224.3	1159.6	1130.5	1141.6	1190.8	1202.0
35°	4737.7	4152.1	2298.9	1282.6	1263.6	1198.6	1097.9	1044.0	1045.4	1091.1	1105.7
37.5°	4965.7	4236.1	1838.7	1268.0	1283.6	1199.9	1065.4	991.5	961.4	961.4	967.1
40°	5257.8	4322.2	1488.6	1278.2	1326.3	1213.1	1048.8	950.2	865.1	867.5	871.9
42.5°	5638.4	4396.1	1300.6	1299.2	1377.8	1231.1	1047.4	895.3	821.4	871.9	917.6
45°	6061.6	4433.0	1217.5	1318.5	1419.2	1242.3	1029.8	886.5	827.2	976.9	1064.4
47.5°	6548.2	4411.7	1171.8	1325.0	1429.3	1242.3	1009.5	907.8	866.1	1131.5	1233.5
50°	7082.3	4350.3	1127.1	1311.7	1425.9	1239.9	1028.5	928.8	880.7	1158.2	1228.7
52.5°	7710.2	4298.8	1080.0	1282.6	1402.2	1227.7	1050.8	920.0	835.0	1053.2	1102.3
55°	8426.2	4313.4	1027.4	1241.3	1365.3	1204.3	1043.0	884.1	786.8	927.8	958.0
57.5°	9341.8	4486.9	964.7	1188.7	1315.1	1165.0	1015.2	867.5	772.3	841.7	859.7
60°	10363.5	4788.8	886.5	1135.9	1252.4	1102.3	993.9	875.3	779.0	835.0	843.8
62.5°	11113.4	4964.7	819.4	1058.6	1167.4	1032.9	967.1	885.1	797.0	858.3	856.3
65°	11317.1	4676.0	735.3	945.8	1052.2	960.3	933.2	896.3	804.8	877.3	867.5
66°	11031.7	4364.9	698.4	893.2	993.9	924.4	916.6	895.3	801.4	879.7	862.7
67.5°	10339.1	3726.8	634.7	816.0	901.0	870.9	889.9	885.1	792.3	877.3	853.9
70°	8432.0	2542.8	542.9	679.4	749.9	766.5	838.4	849.5	763.1	838.4	786.8
72.5°	5891.5	1548.9	480.2	527.3	606.6	653.7	767.9	800.1	724.2	731.9	682.8
75°	2847.1	822.8	435.4	408.7	471.0	546.2	682.8	733.0	662.5	612.3	594.4
77.5°	887.5	502.5	369.4	329.0	369.4	440.9	570.6	642.5	590.0	512.7	505.9
80°	476.8	369.4	284.3	264.0	292.1	346.0	448.7	536.1	506.9	459.8	410.7
82.5°	314.5	239.6	210.4	204.7	222.6	264.0	333.4	444.3	444.3	394.1	286.7
85°	162.3	146.7	144.4	144.4	155.5	175.9	227.0	342.6	365.0	208.1	172.5
87.5°	80.6	84.0	78.3	81.7	87.4	86.1	108.4	172.5	206.0	126.4	105.0
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)