

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: P302790

Luminaire Tested: **GLNA-AF-05-LED-E1-T4W-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P302790  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P191569)  
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-T4W-7050  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 5000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
Wide OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 29442.3 lumens  
Efficiency: N/A  
Efficacy: 105.5 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G5

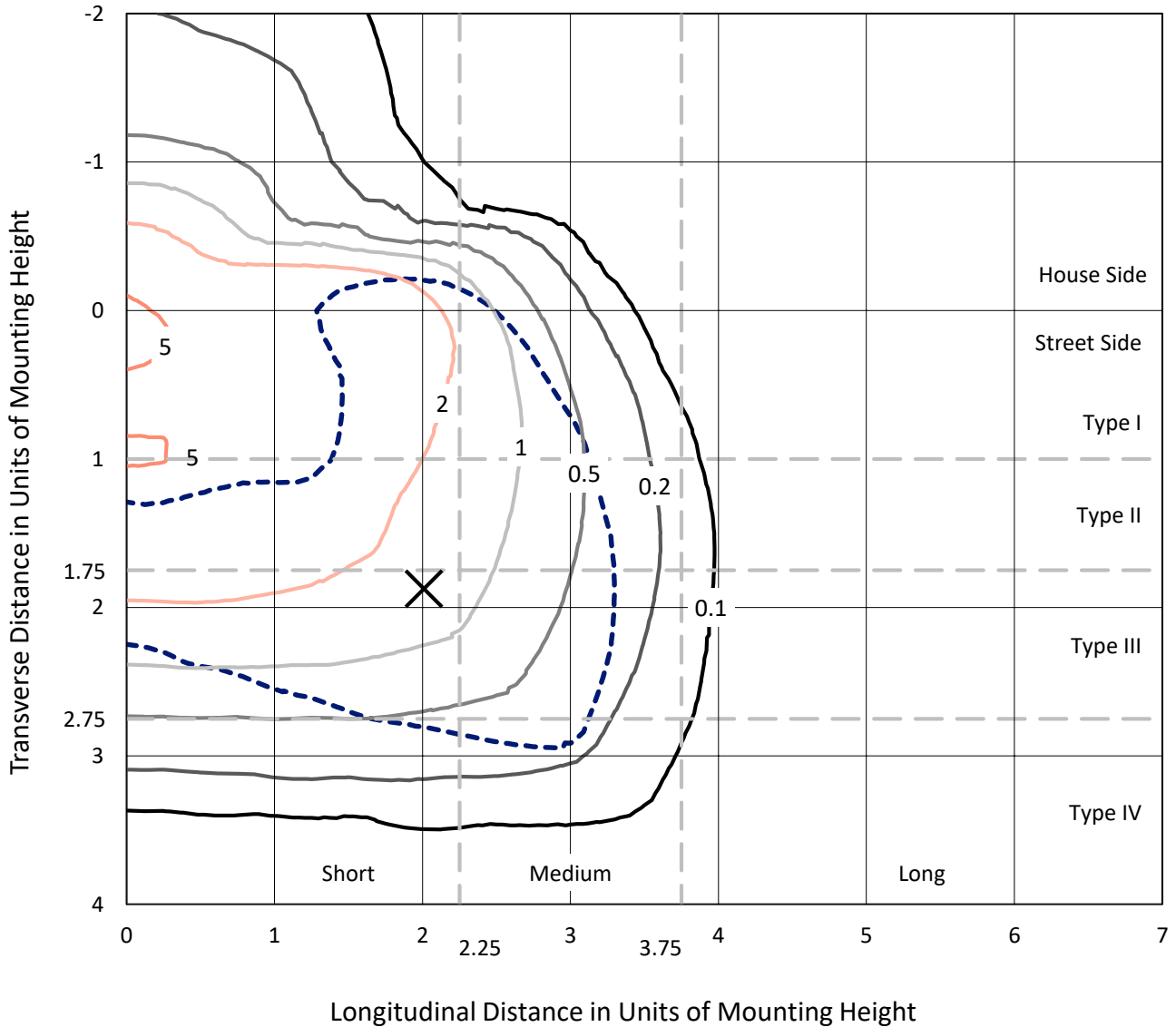
Input Watts (W): 279  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

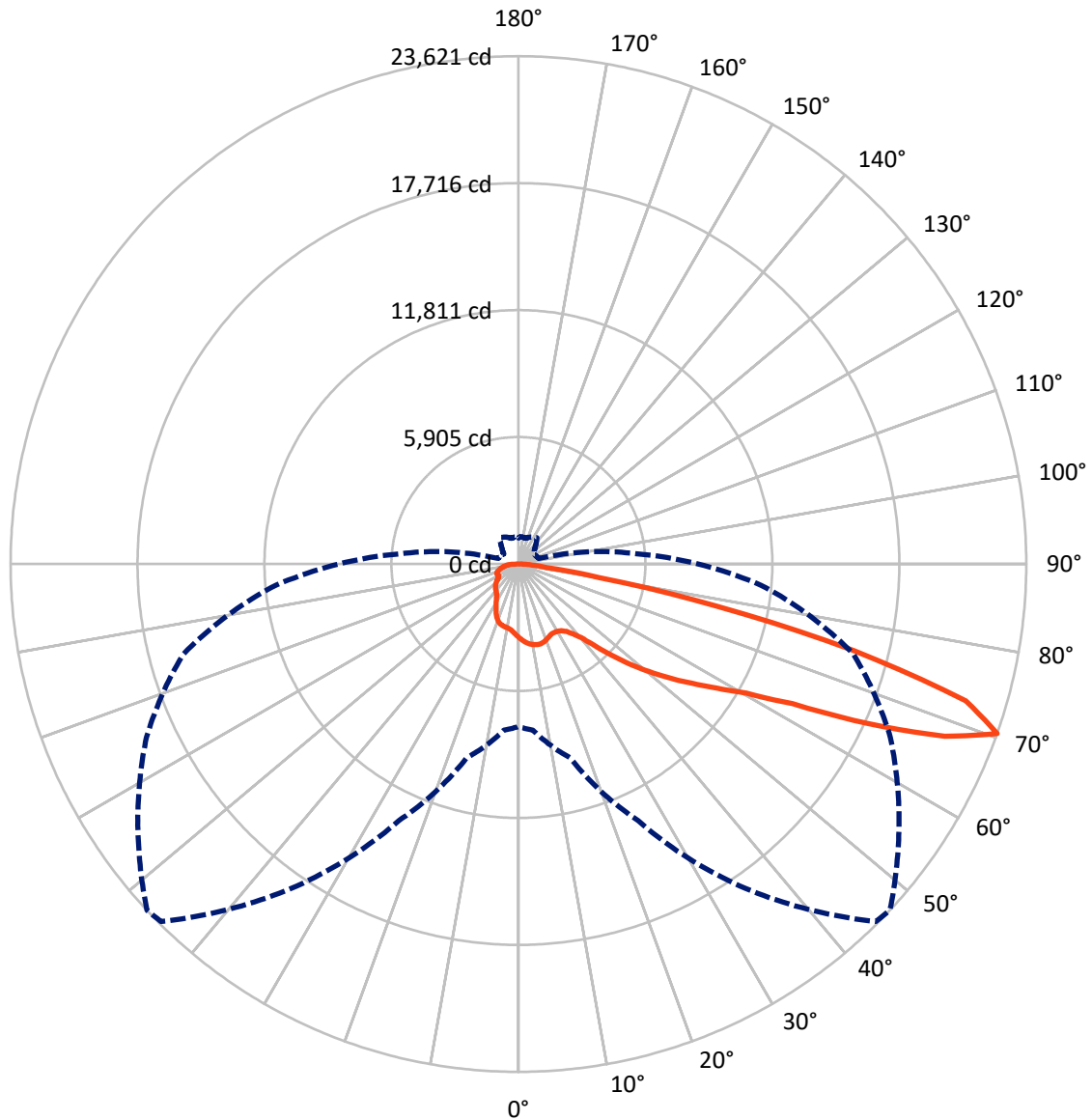
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.3 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6142.2	0.0	6142.2
	% Fixture	20.9	0.0	20.9
<b>Street Side</b>	Lumens	23300.0	0.0	23300.0
	% Fixture	79.1	0.0	79.1
<b>Total</b>	Lumens	29442.3	0.0	29442.3
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	327.3	1.1
10°-20°	960.3	3.3
20°-30°	1418.1	4.8
30°-40°	2061.2	7.0
40°-50°	3709.4	12.6
50°-60°	6426.2	21.8
60°-70°	9172.1	31.2
70°-80°	4708.4	16.0
80°-90°	659.2	2.2
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°	29442.3	100.0
0°-180°	29442.3	100.0



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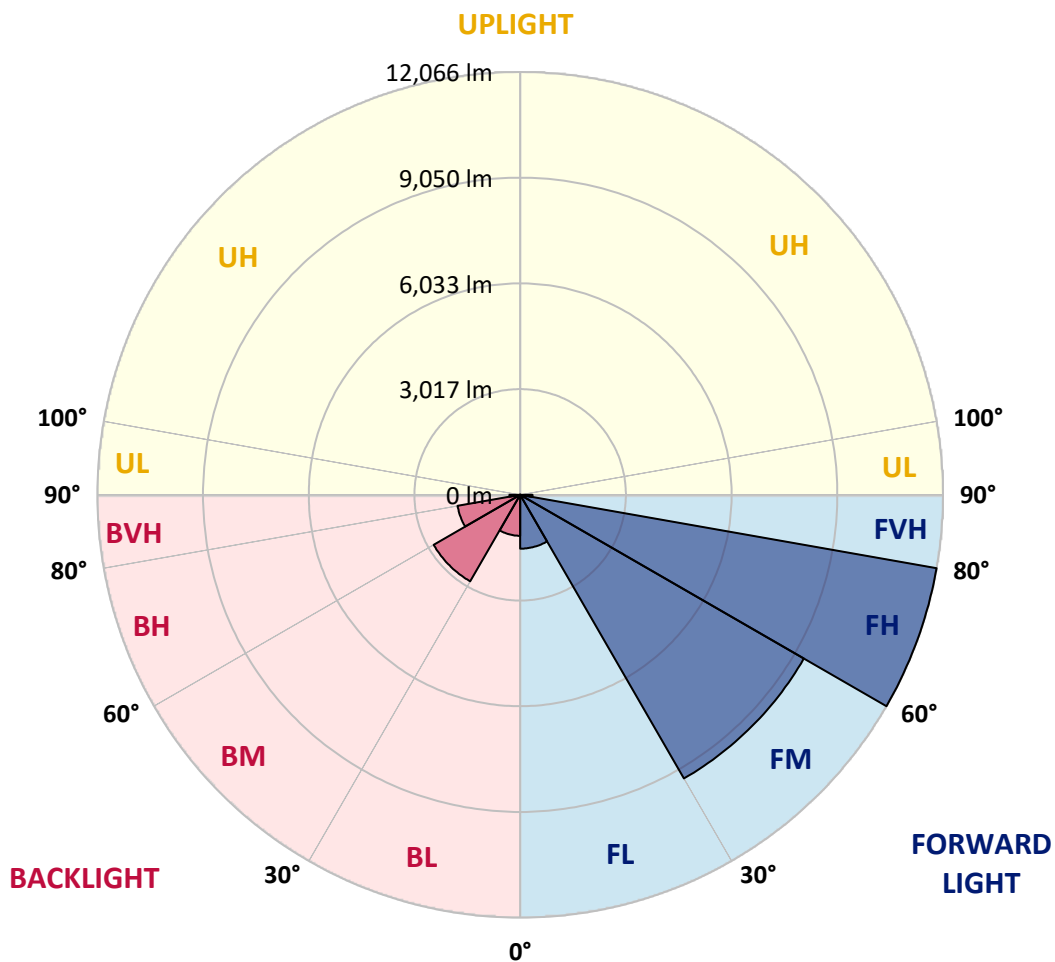
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1536.2	5.2			
FM	(30°-60°)	9345.8	31.7			
FH	(60°-80°)	12066.2	41.0			G5
FVH	(80°-90°)	351.8	1.2			G3/500
BL	(0°-30°)	1169.5	4.0	B3/2500		
BM	(30°-60°)	2851.0	9.7	B3/5000		
BH	(60°-80°)	1814.2	6.2	B3/2500		G3/2500
BVH	(80°-90°)	307.4	1.0			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	3416.1	3416.1	3416.1	3416.1	3416.1	3416.1	3416.1	3416.1	3416.1	3416.1	3416.1
2.5°	3616.9	3609.8	3606.9	3601.2	3594.1	3557.9	3550.8	3525.1	3489.4	3451.8	3413.3
5°	3854.8	3853.3	3837.2	3808.6	3762.9	3684.0	3665.4	3602.6	3517.9	3436.1	3354.8
7.5°	4063.6	4050.8	4020.8	3963.2	3883.3	3775.8	3750.1	3662.6	3546.5	3434.7	3324.3
10°	4216.8	4209.6	4144.0	4065.0	3960.4	3841.4	3811.5	3713.9	3586.4	3444.7	3307.2
12.5°	4304.3	4290.0	4213.9	4119.7	3995.1	3879.0	3848.6	3750.1	3606.9	3444.7	3282.9
15°	4298.6	4288.6	4212.5	4109.3	3983.7	3881.9	3854.8	3755.8	3602.6	3430.4	3251.5
17.5°	4184.0	4188.2	4124.0	4022.2	3919.0	3841.4	3817.2	3725.8	3573.6	3401.9	3214.4
20°	3983.7	4003.7	3960.4	3870.5	3812.9	3760.1	3744.4	3666.8	3529.4	3360.5	3174.0
22.5°	3782.9	3801.5	3784.3	3708.2	3699.7	3668.3	3659.7	3604.1	3490.8	3334.8	3149.7
25°	3635.4	3652.6	3649.7	3583.6	3609.8	3608.3	3601.2	3573.6	3482.3	3334.8	3154.0
27.5°	3595.5	3601.2	3595.5	3535.1	3570.7	3599.8	3594.1	3589.3	3508.0	3376.2	3208.7
30°	3733.0	3724.4	3679.7	3557.9	3591.2	3631.2	3625.5	3628.3	3585.0	3485.1	3330.5
32.5°	4281.5	4242.5	4102.1	3760.1	3672.6	3694.0	3696.8	3744.4	3751.5	3652.6	3519.4
35°	5102.1	5059.3	4877.1	4301.5	3926.1	3851.9	3851.9	3923.3	3966.1	3893.3	3812.9
37.5°	5971.7	5924.1	5827.1	5052.1	4458.9	4125.4	4118.3	4168.3	4229.6	4247.2	4267.2
40°	6959.8	6909.8	6936.9	5894.2	5202.5	4599.3	4497.5	4461.8	4627.8	4738.2	4899.0
42.5°	8041.6	8018.3	8028.2	6832.3	6048.8	5308.6	5163.9	4978.9	5179.6	5375.6	5712.4
45°	9042.5	9062.5	9052.5	7836.5	6991.6	6173.4	6020.2	5662.0	5858.5	6194.8	6743.8
47.5°	9919.2	9836.0	9964.9	8933.5	8047.3	7142.0	6952.6	6473.1	6672.0	7087.3	8015.4
50°	10983.4	10972.0	10783.1	10397.8	9323.1	8114.3	7866.5	7310.9	7620.1	8197.6	9618.6
52.5°	12102.3	11894.4	11721.3	11536.2	10677.0	9111.5	8807.5	8145.7	8734.7	9460.6	11572.4
55°	12331.1	12238.4	12452.9	12764.0	11981.9	10147.1	9793.2	9192.8	9989.6	10904.9	13825.4
57.5°	12821.1	12819.7	13264.0	13818.2	13325.4	11245.5	10888.7	10457.7	11400.1	12559.0	16217.3
60°	13152.2	13245.0	14070.4	15146.0	14644.5	12514.8	12186.5	11917.2	13004.7	14408.1	18446.0
62.5°	13325.4	13451.4	14577.5	15684.5	16509.4	14627.4	14299.7	13911.5	15127.4	16436.6	19749.5
65°	12605.1	12852.5	14498.5	16150.2	18142.5	18052.1	17904.7	17222.9	17781.4	18039.3	19278.5
67.5°	10610.9	10864.5	12781.2	15715.9	19308.5	21355.5	21386.9	20222.4	19414.6	18176.8	16208.7
70°	7560.1	7759.0	9345.0	13176.5	18420.3	23513.9	23621.4	21604.3	19089.2	16119.8	11324.5
72.5°	3589.3	3711.1	5212.5	8575.8	14617.4	21544.4	21752.3	19839.9	16231.5	11934.4	6177.7
75°	1319.2	1356.3	1761.6	3648.3	8478.3	15888.1	16133.1	14222.1	10759.8	5941.7	2353.4
77.5°	790.6	814.9	988.5	1539.9	3334.8	9081.5	9443.5	7734.7	4702.5	2211.6	1157.4
80°	552.8	569.9	708.8	958.1	1575.6	3460.9	3782.9	3156.9	1873.4	1399.6	842.0
82.5°	373.9	382.5	498.6	647.5	1047.1	1235.9	1333.4	1403.8	1263.5	1041.3	534.2
85°	245.0	253.6	338.2	426.7	666.0	638.9	653.2	826.3	922.4	707.4	296.4
87.5°	140.3	146.0	203.6	227.9	326.8	270.7	273.5	435.3	590.4	477.1	180.3
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°	3416.1	3416.1	3416.1	3416.1	3416.1	3416.1	3416.1	3416.1	3416.1	3416.1	3416.1
2.5°	3403.3	3384.7	3343.4	3317.2	3292.9	3287.2	3277.2	3275.8	3274.4	3274.4	3270.1
5°	3327.2	3295.8	3231.6	3195.4	3165.4	3162.6	3161.2	3168.3	3171.1	3174.0	3169.7
7.5°	3278.7	3235.8	3155.4	3104.1	3068.4	3059.4	3074.1	3106.9	3128.3	3136.9	3132.6
10°	3248.7	3195.4	3102.6	3046.5	3016.5	3012.3	3030.8	3069.8	3114.1	3131.2	3129.8
12.5°	3214.4	3154.0	3055.1	2996.6	2979.4	2988.0	3012.3	3047.9	3094.1	3121.2	3122.6
15°	3179.7	3109.8	3008.0	2956.6	2949.5	2960.9	2983.7	3010.8	3046.5	3074.1	3077.0
17.5°	3138.3	3065.1	2963.7	2910.5	2904.7	2910.5	2911.9	2926.2	2949.5	2975.1	2982.3
20°	3094.1	3019.4	2913.3	2860.5	2834.8	2812.0	2785.8	2788.7	2795.8	2822.0	2827.7
22.5°	3062.2	2988.0	2874.8	2801.5	2733.0	2664.0	2612.7	2605.5	2608.4	2629.8	2636.9
25°	3065.1	2986.6	2864.8	2738.7	2588.4	2478.0	2409.0	2397.6	2396.2	2411.9	2422.4
27.5°	3121.2	3042.2	2901.9	2674.0	2430.9	2267.3	2194.5	2185.9	2174.5	2178.8	2190.2
30°	3245.8	3172.6	2992.3	2608.4	2260.1	2061.3	1985.2	1976.6	1960.9	1953.8	1962.3
32.5°	3449.0	3389.0	3124.0	2545.1	2089.8	1884.8	1807.7	1789.2	1779.2	1770.6	1777.8
35°	3787.2	3761.5	3300.1	2476.6	1939.5	1748.7	1678.8	1650.3	1636.0	1651.7	1663.1
37.5°	4317.2	4331.4	3530.8	2369.1	1823.4	1658.8	1599.8	1567.0	1545.6	1558.5	1571.3
40°	5067.8	5077.8	3785.8	2217.3	1723.1	1605.6	1542.8	1512.8	1482.3	1459.5	1458.1
42.5°	6053.1	5951.7	4036.5	2052.7	1607.0	1572.7	1502.8	1465.2	1419.5	1356.3	1343.4
45°	7221.9	6865.6	4226.8	1863.4	1476.6	1532.8	1458.1	1406.7	1334.9	1266.4	1259.2
47.5°	8568.7	7846.5	4320.0	1667.4	1354.8	1473.8	1403.8	1322.0	1231.6	1197.4	1193.1
50°	10212.7	9011.1	4364.2	1476.6	1249.2	1396.7	1324.9	1228.8	1153.1	1146.0	1141.7
52.5°	12085.2	10412.1	4379.0	1320.6	1161.7	1296.3	1260.7	1167.4	1107.0	1113.2	1113.2
55°	14044.7	11858.7	4184.0	1207.4	1081.3	1193.1	1217.4	1143.2	1092.7	1116.0	1124.6
57.5°	15843.4	13140.8	3570.7	1120.3	1005.7	1114.6	1201.7	1166.0	1131.7	1224.5	1230.2
60°	17224.4	13898.1	2666.9	1041.3	949.5	1087.0	1243.5	1253.5	1262.1	1483.8	1514.2
62.5°	17513.6	13646.5	1833.4	980.0	923.8	1110.3	1319.2	1320.6	1310.6	1465.2	1483.8
65°	16185.9	12051.9	1333.4	945.3	902.4	1151.7	1383.9	1353.4	1287.8	1405.3	1370.5
67.5°	12853.9	9080.1	1110.3	919.6	871.0	1148.9	1452.4	1383.9	1274.9	1376.7	1320.6
70°	8343.6	5490.3	988.5	898.2	833.5	1094.2	1492.3	1381.0	1237.3	1280.6	1214.5
72.5°	4070.7	2455.2	906.7	866.8	794.9	1018.5	1490.9	1354.8	1198.8	1196.0	1160.3
75°	1592.7	1124.6	832.0	819.2	729.3	932.4	1450.9	1317.7	1153.1	1107.0	1094.2
77.5°	932.4	802.1	737.8	749.3	650.3	846.3	1392.4	1253.5	1089.9	1035.6	1021.4
80°	678.9	600.4	628.9	647.5	555.6	760.7	1313.5	1174.6	1019.9	1047.1	1027.1
82.5°	435.3	386.8	510.0	528.5	462.9	673.1	1227.4	1091.3	921.0	836.3	816.3
85°	222.2	245.0	379.6	402.5	356.8	552.8	1123.2	981.4	809.2	696.0	707.4
87.5°	124.6	167.5	242.1	270.7	252.1	425.3	911.0	809.2	660.3	537.1	472.9
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)