

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: P299147

Luminaire Tested: **GLNA-AF-09-LED-E1-T3-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299147
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24140)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-09-LED-E1-T3-7050
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 5000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 53042.4 lumens
Efficiency: N/A
Efficacy: 105.9 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B4 - U0 - G5

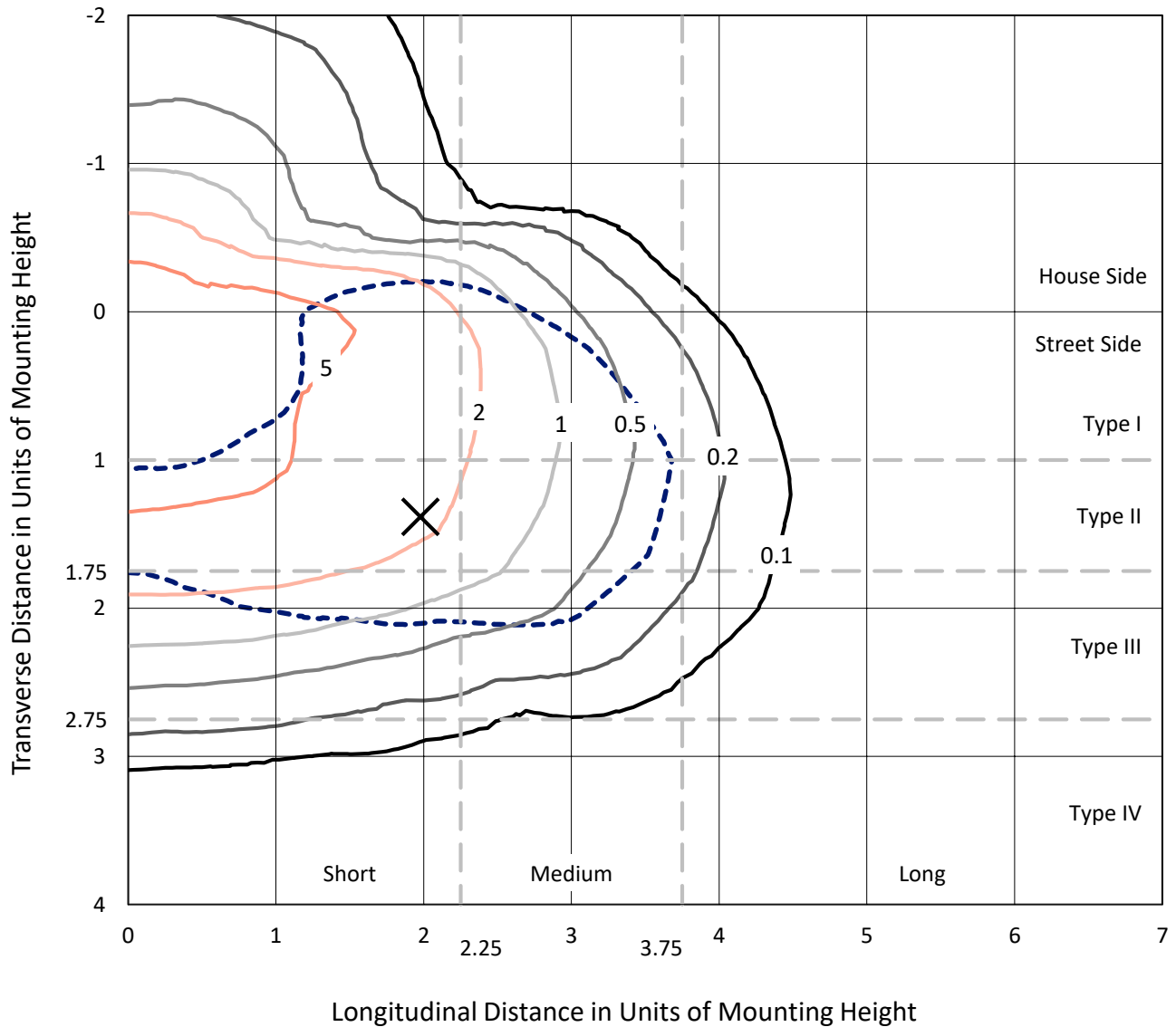
Input Watts (W): 501
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

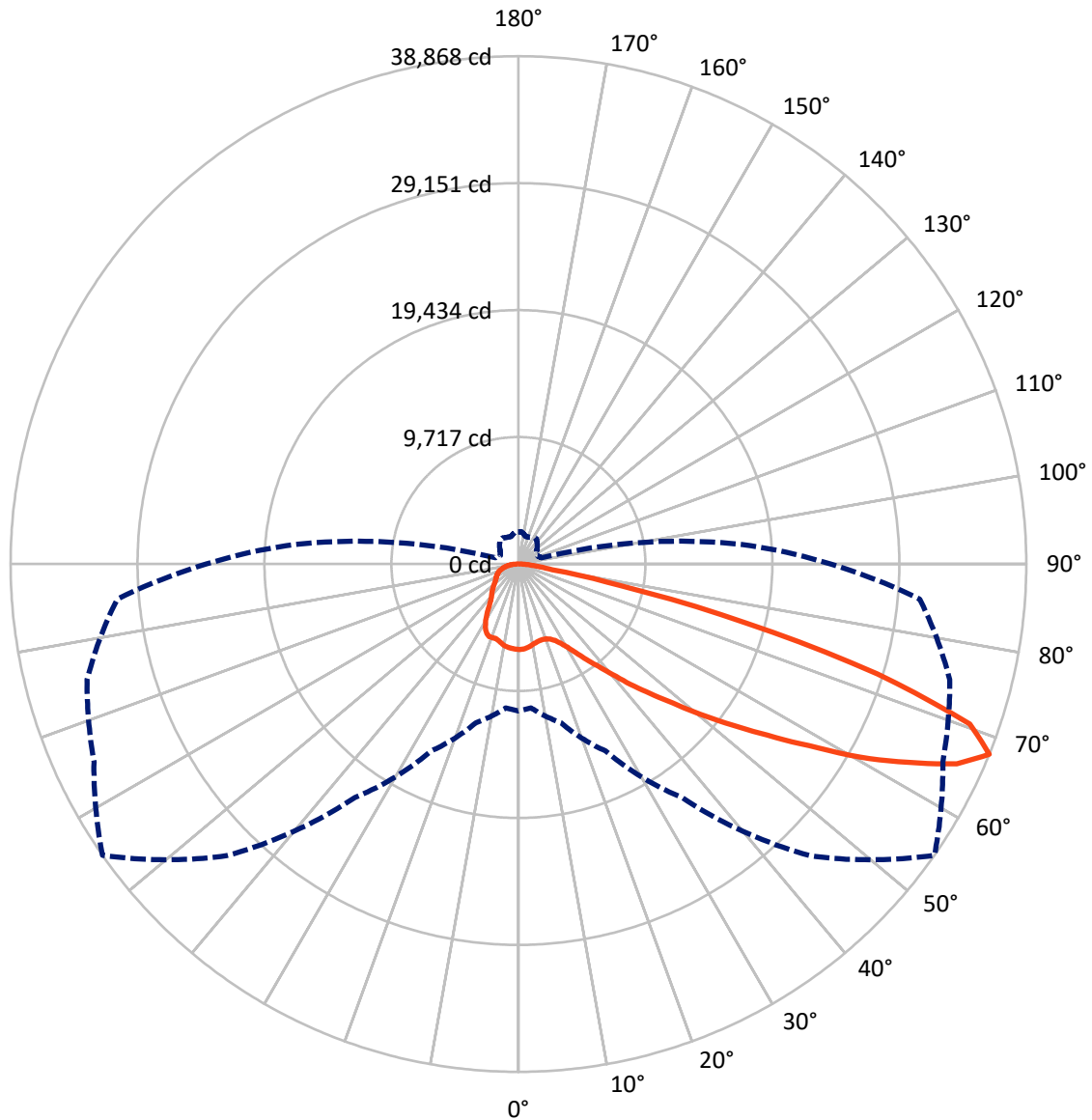
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.5 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11458.3	0.0	11458.3
	% Fixture	21.6	0.0	21.6
Street Side	Lumens	41584.1	0.0	41584.1
	% Fixture	78.4	0.0	78.4
Total	Lumens	53042.4	0.0	53042.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	610.5	1.2
10°-20°	1729.0	3.3
20°-30°	2896.4	5.5
30°-40°	4762.9	9.0
40°-50°	8017.4	15.1
50°-60°	12618.8	23.8
60°-70°	15059.1	28.4
70°-80°	6466.7	12.2
80°-90°	881.7	1.7
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°	53042.4	100.0
0°-180°	53042.4	100.0



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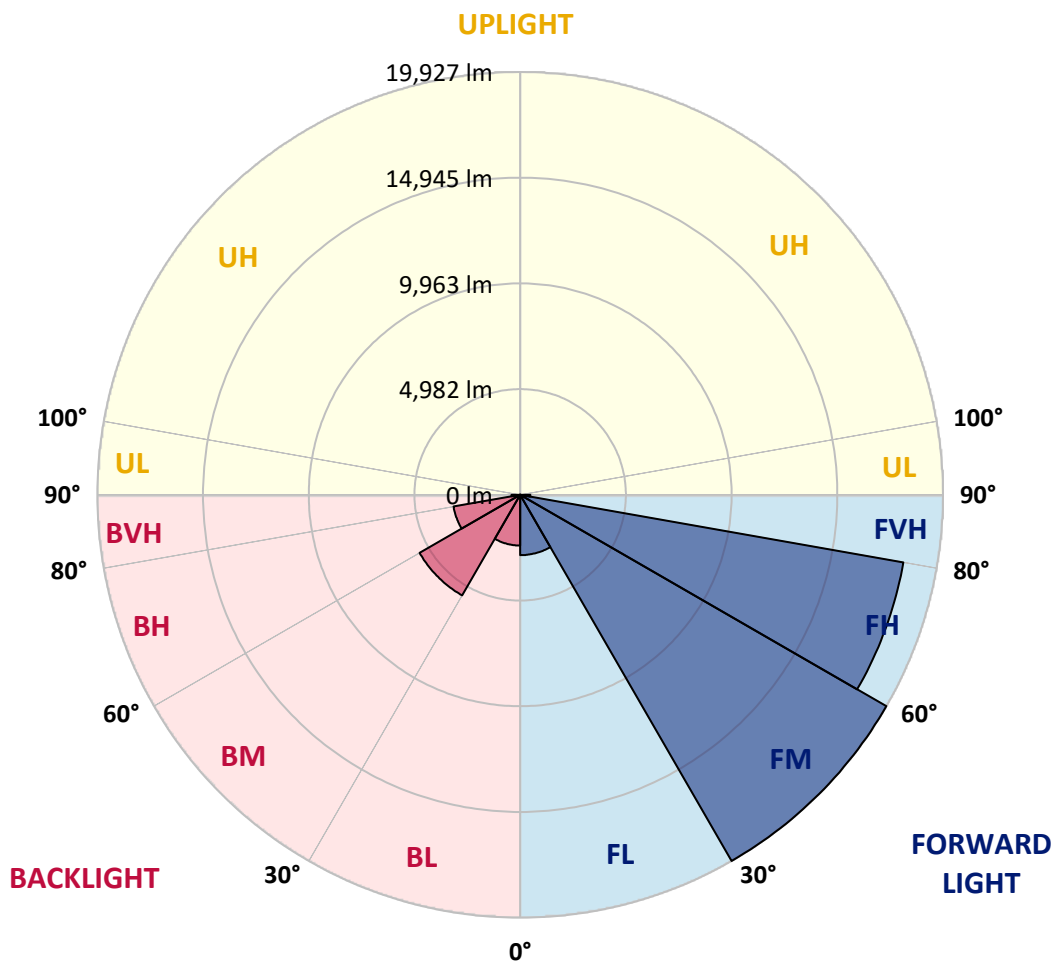
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2843.2	5.4			
FM	(30°-60°)	19926.6	37.6			
FH	(60°-80°)	18337.0	34.6			G5
FVH	(80°-90°)	477.3	0.9			G3/500
BL	(0°-30°)	2392.7	4.5	B3/2500		
BM	(30°-60°)	5472.4	10.3	B4/8500		
BH	(60°-80°)	3188.8	6.0	B4/5000		G4/5000
BVH	(80°-90°)	404.4	0.8			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	6540.7	6540.7	6540.7	6540.7	6540.7	6540.7	6540.7	6540.7	6540.7	6540.7	6540.7
2.5°	6484.3	6486.9	6492.0	6512.5	6530.5	6525.3	6527.9	6517.7	6515.1	6499.7	6515.1
5°	6402.4	6410.0	6412.6	6445.9	6466.4	6471.5	6463.8	6451.0	6435.7	6420.3	6428.0
7.5°	6215.3	6235.8	6238.4	6284.5	6317.8	6361.4	6363.9	6366.5	6358.8	6348.6	6363.9
10°	6097.5	6102.6	6100.0	6133.4	6159.0	6207.7	6235.8	6284.5	6305.0	6310.1	6320.4
12.5°	6089.8	6084.7	6077.0	6077.0	6069.3	6089.8	6141.0	6210.2	6258.9	6274.3	6287.1
15°	6171.8	6169.2	6143.6	6105.2	6056.5	6041.1	6084.7	6161.5	6225.6	6258.9	6271.7
17.5°	6356.2	6340.9	6299.9	6212.8	6107.7	6066.7	6071.9	6135.9	6210.2	6253.8	6266.6
20°	6694.4	6694.4	6607.3	6443.4	6256.3	6159.0	6112.9	6151.3	6223.0	6281.9	6299.9
22.5°	7278.6	7283.7	7137.6	6868.6	6553.5	6346.0	6230.7	6223.0	6307.6	6374.2	6394.7
25°	8106.1	8085.6	7880.6	7496.3	7017.2	6673.9	6474.1	6428.0	6499.7	6574.0	6599.6
27.5°	9069.4	8995.1	8751.7	8288.0	7668.0	7165.8	6858.4	6784.1	6853.3	6937.8	6963.4
30°	10022.4	9945.6	9656.1	9148.8	8459.6	7824.3	7383.6	7263.2	7360.5	7481.0	7496.3
32.5°	10975.5	10975.5	10652.7	10060.9	9310.2	8610.8	8083.0	7939.5	8100.9	8247.0	8280.3
35°	12115.6	12120.7	11808.1	11095.9	10288.9	9548.5	8966.9	8861.9	9105.2	9207.7	9287.1
37.5°	13517.0	13545.1	13142.9	12282.1	11398.2	10619.4	9927.6	9784.2	10027.5	10306.8	10563.0
40°	15031.1	15066.9	14623.7	13563.1	12679.2	11864.5	11116.4	10857.6	11262.4	11795.3	12125.8
42.5°	16476.0	16660.5	16232.6	15141.2	14190.7	13347.9	12589.5	12212.9	12720.2	13524.6	13811.6
45°	18564.0	18697.3	17951.7	16962.8	16068.7	15125.9	14121.6	13724.5	14434.1	15448.7	15507.6
47.5°	19955.2	19855.3	19476.1	18861.2	18295.0	17413.7	15902.1	15466.6	16409.4	17603.3	17272.8
50°	20695.6	20726.3	20675.1	20711.0	20731.5	20178.1	18084.9	17488.0	18612.7	20055.1	19294.2
52.5°	21387.3	21182.4	21351.5	22191.8	23206.3	23001.4	20459.9	19837.3	20974.8	22775.9	21430.9
55°	21372.0	21059.4	21610.2	23093.6	25294.3	25530.0	23126.9	22409.5	23472.8	25694.0	23695.7
57.5°	20616.2	20631.5	21479.6	23421.5	26749.5	27907.5	26221.8	25145.7	26121.8	28650.5	25763.2
60°	19576.0	19716.9	20939.0	23367.7	27915.2	29857.2	30018.6	28094.6	28717.1	31338.0	27474.6
62.5°	17897.9	18046.5	19732.3	22809.2	27738.4	31735.1	33451.6	31440.5	31430.2	32967.4	27976.7
65°	15251.4	15207.9	16978.2	20721.2	26255.1	33123.7	36861.6	34333.0	33474.7	32993.0	26967.3
67.5°	11247.0	11052.3	12571.6	15781.7	21822.9	31568.6	38867.6	35839.4	34171.6	30823.1	23882.7
70°	5836.2	5641.5	6871.2	9215.4	14352.2	24638.5	36646.4	35060.6	32631.8	25837.5	18710.1
72.5°	2495.4	2462.1	2961.6	4042.8	6942.9	14211.2	28735.1	30346.5	27999.8	19250.6	12863.6
75°	1678.1	1667.8	1854.9	2203.3	3123.0	5767.0	17982.5	21541.0	20485.5	11936.2	7235.0
77.5°	1316.9	1304.0	1414.2	1583.3	2024.0	2275.0	7980.5	11564.7	10703.9	5195.7	3166.6
80°	1029.9	1019.7	1088.8	1181.1	1455.2	1434.7	2626.0	4601.3	3561.1	1990.7	1539.7
82.5°	812.1	812.1	868.5	871.1	1032.5	978.7	1370.7	2026.5	1778.0	1160.6	942.8
85°	743.0	743.0	801.9	650.7	673.8	617.4	850.6	1201.6	1127.3	476.5	409.9
87.5°	374.0	363.8	673.8	576.4	366.4	327.9	415.0	581.6	625.1	263.9	205.0
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6540.7	6540.7	6540.7	6540.7	6540.7	6540.7	6540.7	6540.7	6540.7	6540.7
2.5°	6510.0	6507.4	6512.5	6515.1	6535.6	6563.8	6576.6	6594.5	6604.8	6599.6
5°	6433.1	6438.2	6458.7	6474.1	6510.0	6556.1	6581.7	6602.2	6620.1	6612.4
7.5°	6369.1	6381.9	6412.6	6425.4	6445.9	6458.7	6456.2	6463.8	6479.2	6461.3
10°	6333.2	6348.6	6371.6	6353.7	6305.0	6235.8	6171.8	6138.5	6148.7	6135.9
12.5°	6297.3	6317.8	6299.9	6215.3	6079.6	5989.9	5941.2	5946.3	5969.4	5974.5
15°	6276.8	6284.5	6207.7	6048.8	5910.5	5897.7	5923.3	5918.1	5920.7	5920.7
17.5°	6276.8	6256.3	6112.9	5954.0	5895.1	5872.0	5792.6	5692.7	5649.1	5633.8
20°	6310.1	6256.3	6082.1	5977.1	5849.0	5651.7	5441.6	5257.2	5175.2	5152.1
22.5°	6410.0	6317.8	6169.2	5987.3	5623.5	5293.0	4960.0	4739.6	4591.0	4565.4
25°	6612.4	6510.0	6340.9	5851.5	5264.8	4793.4	4414.3	4168.3	4019.7	3999.2
27.5°	6966.0	6899.4	6433.1	5551.8	4788.3	4283.6	3932.6	3743.0	3632.9	3625.2
30°	7498.9	7465.6	6387.0	5108.6	4201.6	3789.2	3620.1	3509.9	3427.9	3425.4
32.5°	8349.5	8080.5	6235.8	4568.0	3666.2	3438.2	3369.0	3302.4	3238.3	3238.3
35°	9443.4	8577.5	5948.9	3989.0	3340.8	3243.5	3156.3	3051.3	2966.8	2961.6
37.5°	10729.5	8884.9	5433.9	3522.7	3187.1	3112.8	2984.7	2828.4	2679.8	2654.2
40°	12028.4	8977.1	4708.9	3235.8	3089.7	2982.1	2825.9	2641.4	2497.9	2490.2
42.5°	13219.8	8800.4	3940.3	3038.5	2992.4	2848.9	2684.9	2521.0	2408.3	2405.7
45°	14218.9	8341.8	3294.7	2851.5	2889.9	2728.5	2582.5	2449.2	2362.1	2344.2
47.5°	15159.2	7693.6	2841.2	2654.2	2787.4	2661.9	2538.9	2413.4	2328.8	2316.0
50°	16250.6	6994.2	2523.5	2462.1	2697.8	2638.8	2574.8	2444.1	2303.2	2287.8
52.5°	17572.5	6389.6	2275.0	2293.0	2628.6	2669.6	2667.0	2531.2	2285.3	2264.8
55°	19048.2	5718.3	2088.0	2154.6	2600.4	2725.9	2690.1	2613.2	2300.6	2269.9
57.5°	20500.9	4934.4	1957.3	2049.6	2559.4	2720.8	2579.9	2469.7	2336.5	2293.0
60°	21589.7	3881.4	1857.4	1957.3	2469.7	2636.3	2459.5	2313.5	2328.8	2295.5
62.5°	21661.5	3000.1	1737.0	1877.9	2334.0	2551.7	2380.1	2244.3	2362.1	2331.4
65°	20388.2	2267.3	1621.7	1783.1	2187.9	2497.9	2303.2	2205.9	2431.3	2398.0
67.5°	17165.2	1824.1	1524.4	1685.8	2041.9	2385.2	2234.0	2170.0	2492.8	2433.9
70°	12392.2	1555.1	1429.6	1567.9	1911.2	2257.1	2172.6	2105.9	2326.3	2234.0
72.5°	7629.5	1347.6	1322.0	1411.6	1811.3	2123.9	2080.3	1985.5	2095.7	2021.4
75°	3809.6	1168.3	1201.6	1257.9	1670.4	1972.7	1926.6	1831.8	1847.2	1831.8
77.5°	1824.1	999.2	1060.7	1104.2	1488.5	1801.1	1752.4	1655.0	1637.1	1639.7
80°	1155.4	835.2	894.1	924.9	1329.7	1601.2	1552.6	1455.2	1660.2	1539.7
82.5°	722.5	678.9	694.3	750.7	1158.0	1393.7	1329.7	1242.6	1496.2	1183.6
85°	399.7	474.0	494.5	543.1	891.6	1165.7	1101.6	991.5	889.0	873.6
87.5°	238.3	281.8	289.5	325.4	599.5	842.9	745.5	707.1	586.7	584.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)