

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: P300443

Luminaire Tested: **GLNA-AF-05-LED-E1-T4FT-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300443
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24295)
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-T4FT-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
Forward Throw OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19649.6 lumens
Efficiency: N/A
Efficacy: 121.3 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B2 - U0 - G4

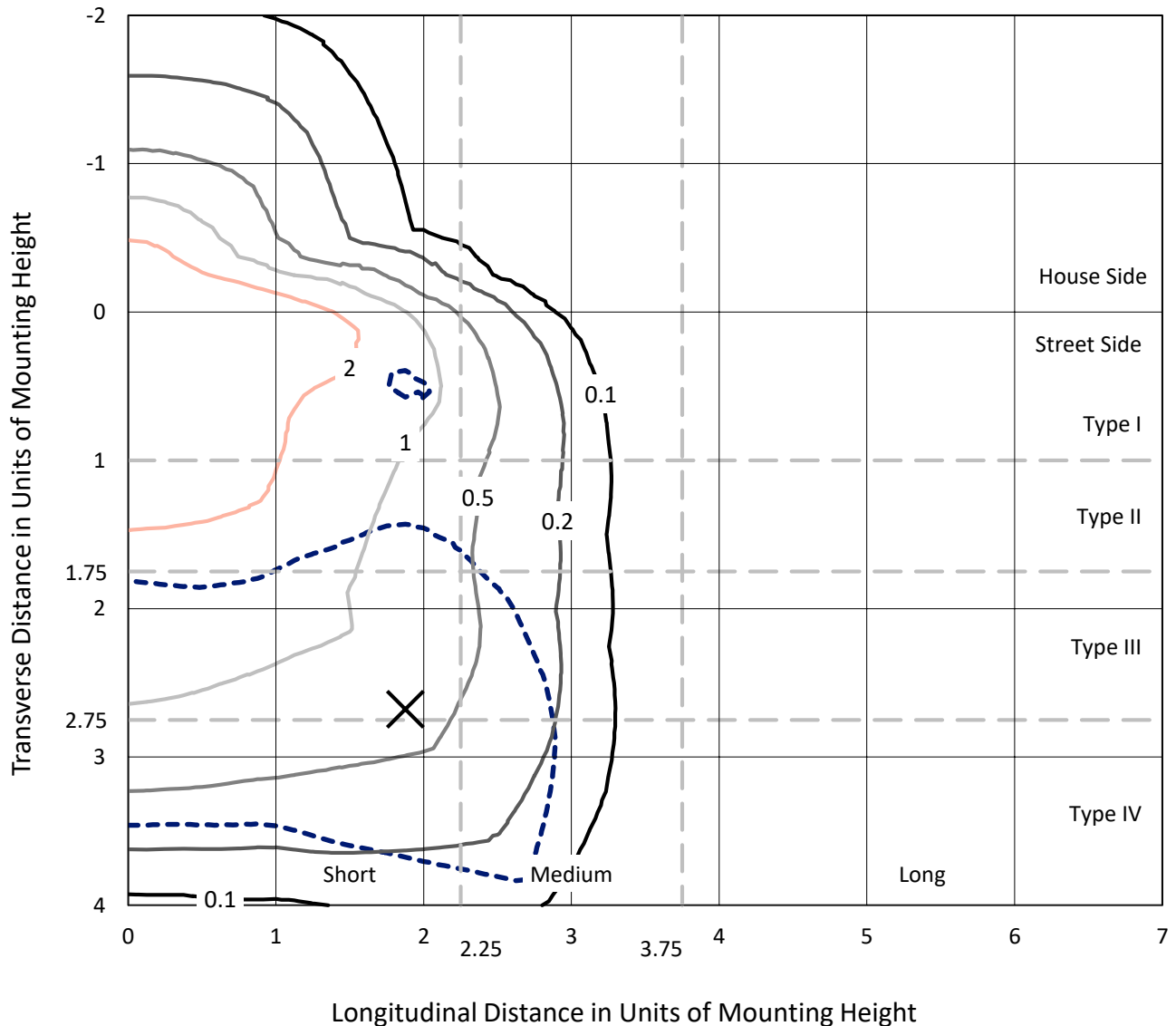
Input Watts (W): 162
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

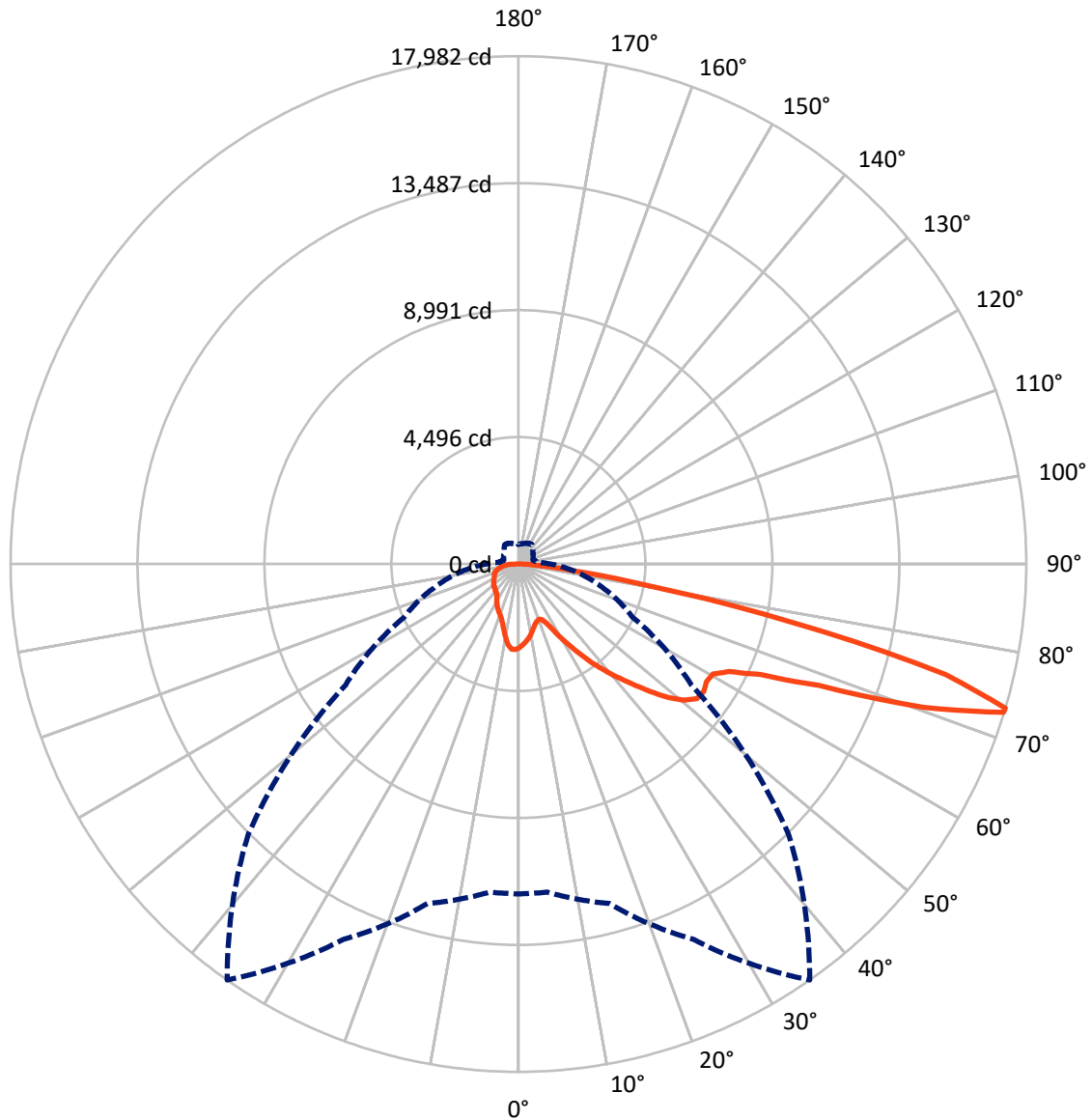
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.7 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 73-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3747.7	0.0	3747.7
	% Fixture	19.1	0.0	19.1
Street Side	Lumens	15901.9	0.0	15901.9
	% Fixture	80.9	0.0	80.9
Total	Lumens	19649.6	0.0	19649.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	268.5	1.4
10°-20°	670.1	3.4
20°-30°	1083.3	5.5
30°-40°	1816.6	9.2
40°-50°	2800.1	14.3
50°-60°	3756.7	19.1
60°-70°	5004.7	25.5
70°-80°	3817.0	19.4
80°-90°	432.6	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°	19649.6	100.0
0°-180°	19649.6	100.0



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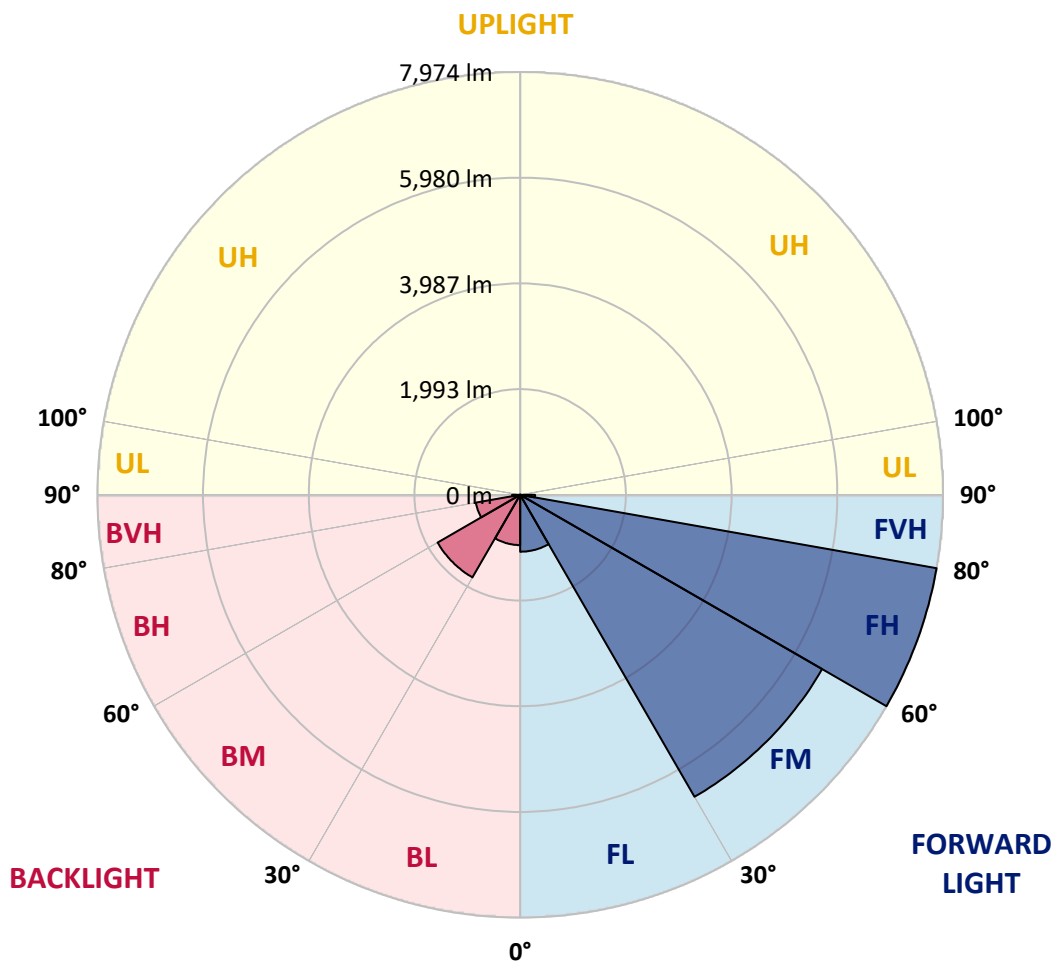
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1073.5	5.5			
FM	(30°-60°)	6574.9	33.5			
FH	(60°-80°)	7973.8	40.6			G4/12000
FVH	(80°-90°)	279.7	1.4			G3/500
BL	(0°-30°)	948.4	4.8	B2/1000		
BM	(30°-60°)	1798.5	9.2	B2/2500		
BH	(60°-80°)	847.9	4.3	B2/1000		G2/1000
BVH	(80°-90°)	153.0	0.8			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2965.7	2965.7	2965.7	2965.7	2965.7	2965.7	2965.7	2965.7	2965.7	2965.7	2965.7
2.5°	2848.7	2854.4	2847.8	2856.3	2870.4	2885.5	2895.9	2911.0	2928.0	2951.6	2957.2
5°	2714.7	2723.2	2723.2	2738.3	2765.7	2790.2	2812.9	2837.4	2873.3	2913.8	2929.9
7.5°	2567.5	2572.3	2580.8	2603.4	2643.0	2677.9	2710.0	2749.7	2798.7	2852.5	2880.8
10°	2390.1	2396.7	2410.0	2442.0	2495.8	2544.0	2590.2	2644.9	2707.2	2774.2	2810.0
12.5°	2264.6	2262.8	2268.4	2292.0	2339.2	2397.7	2464.7	2534.5	2610.9	2689.3	2732.7
15°	2222.2	2211.8	2190.1	2184.4	2209.9	2268.4	2345.8	2431.7	2523.2	2617.6	2671.3
17.5°	2248.6	2230.7	2171.2	2127.8	2124.0	2168.4	2250.5	2346.7	2452.4	2567.5	2634.5
20°	2414.7	2372.2	2226.0	2125.0	2090.1	2111.8	2183.5	2285.4	2410.0	2562.8	2648.7
22.5°	2811.9	2749.7	2439.2	2251.4	2133.5	2107.1	2160.8	2269.4	2414.7	2621.3	2730.8
25°	3390.4	3301.7	2805.3	2566.6	2323.1	2182.6	2194.8	2306.2	2481.7	2757.2	2889.3
27.5°	3847.1	3789.5	3283.7	3011.0	2668.5	2386.4	2305.2	2398.6	2618.5	2979.9	3114.8
30°	4118.8	4083.9	3795.2	3514.9	3109.2	2711.0	2516.6	2572.3	2832.7	3288.5	3399.8
32.5°	4434.0	4413.2	4271.7	4014.1	3584.7	3137.5	2851.6	2831.7	3119.5	3659.3	3710.2
35°	4760.5	4753.9	4670.8	4485.9	4095.2	3699.9	3296.0	3162.0	3431.9	4044.3	4012.2
37.5°	5064.3	5053.0	5004.9	4897.3	4629.3	4303.8	3748.9	3500.8	3768.7	4412.3	4269.8
40°	5623.9	5535.2	5370.0	5288.9	5169.0	4812.4	4108.4	3816.9	4117.9	4763.3	4492.5
42.5°	6306.1	6161.7	5854.1	5742.8	5725.8	5213.4	4353.8	4123.5	4469.8	5111.5	4711.4
45°	6843.0	6707.1	6442.0	6301.4	6363.6	5576.7	4600.1	4451.0	4832.2	5476.7	4936.9
47.5°	7415.8	7202.5	6851.5	6894.0	7029.8	5920.2	4851.1	4802.9	5229.4	5885.2	5217.2
50°	7436.5	7273.3	7119.5	7373.3	7584.7	6236.3	5165.3	5171.9	5715.4	6399.5	5589.9
52.5°	7005.3	6970.4	7214.8	7613.9	7918.7	6486.3	5522.9	5553.1	6337.2	6990.2	5999.4
55°	6854.3	6814.7	7096.8	7529.9	7964.0	6693.0	5910.7	5965.4	7089.3	7613.0	6398.6
57.5°	7222.3	7134.6	7153.4	7490.3	7853.6	6919.4	6333.5	6443.9	7906.4	8157.4	6655.2
60°	8250.9	8063.1	7706.4	7697.9	7913.0	7259.1	6822.2	6957.2	8755.7	8417.9	6555.2
62.5°	9693.6	9505.8	8837.8	8402.8	8370.7	7819.6	7422.4	7458.2	9246.4	8065.0	5944.7
65°	11255.3	11087.3	10340.9	9726.6	9430.4	8748.1	8119.7	7681.9	9085.9	7094.0	4876.5
67.5°	13151.0	12970.7	12329.1	11762.0	11477.0	10246.6	8609.4	7467.7	8067.8	5495.5	3505.5
70°	14476.7	14292.7	14039.8	14499.4	15196.7	12408.4	8672.6	6596.7	6025.8	3652.7	2109.9
72.5°	12747.1	12661.2	13122.7	15058.0	17962.4	13720.0	7839.4	4802.9	3499.8	1939.1	1221.0
73°	11679.0	11660.1	12447.0	14666.4	17982.2	13518.0	7474.3	4464.2	3001.6	1715.5	1116.3
75°	5273.8	5425.7	7150.6	11202.4	15623.2	11139.2	5260.6	2560.9	1695.7	1185.2	842.6
77.5°	1267.3	1320.1	2237.3	5320.0	9866.3	6638.2	2383.5	1266.3	1084.2	837.0	615.2
80°	539.7	557.7	861.5	1965.5	4645.4	2673.2	1098.4	848.3	750.2	584.1	431.2
82.5°	300.1	318.9	488.8	891.7	1874.9	911.5	670.0	590.7	493.5	352.0	280.2
85°	169.8	180.2	285.9	498.2	794.5	366.1	401.0	392.5	278.4	181.2	137.8
87.5°	80.2	86.8	137.8	231.2	311.4	143.4	203.8	224.6	174.6	110.4	71.7
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°	2965.7	2965.7	2965.7	2965.7	2965.7	2965.7	2965.7	2965.7	2965.7	2965.7
2.5°	2963.9	2980.8	3000.7	3011.0	3020.5	3031.8	3043.1	3043.1	3045.0	3045.9
5°	2943.1	2978.0	3009.1	3022.4	3025.2	3025.2	3022.4	3007.3	2994.0	2999.7
7.5°	2899.7	2950.6	2977.1	2972.3	2936.5	2895.0	2860.1	2817.6	2795.9	2792.1
10°	2837.4	2895.9	2900.6	2853.5	2764.8	2676.1	2602.5	2530.7	2496.8	2488.3
12.5°	2768.5	2822.3	2792.1	2694.9	2552.4	2423.2	2329.8	2257.1	2225.0	2216.5
15°	2712.9	2749.7	2673.2	2520.4	2341.1	2204.3	2126.9	2073.1	2050.4	2043.8
17.5°	2683.6	2691.2	2551.5	2344.9	2154.2	2040.1	1991.9	1966.5	1958.0	1953.3
20°	2697.8	2644.9	2435.4	2181.6	2001.4	1921.2	1909.8	1903.2	1901.4	1898.5
22.5°	2768.5	2630.8	2328.8	2026.9	1867.4	1832.5	1841.9	1841.0	1839.1	1837.2
25°	2895.0	2643.0	2225.0	1879.7	1755.1	1747.6	1764.5	1764.5	1757.0	1757.0
27.5°	3062.0	2668.5	2108.9	1740.0	1653.2	1654.1	1667.3	1663.6	1655.1	1649.4
30°	3265.8	2684.5	1973.1	1614.5	1557.9	1554.1	1557.9	1541.8	1516.4	1514.5
32.5°	3474.3	2664.7	1815.5	1503.2	1456.9	1448.4	1445.6	1423.0	1393.7	1385.2
35°	3663.1	2592.1	1655.1	1414.5	1360.7	1341.8	1355.0	1347.5	1321.0	1314.4
37.5°	3800.8	2457.1	1510.7	1336.1	1291.8	1287.1	1295.6	1298.4	1267.3	1260.7
40°	3893.3	2274.1	1387.1	1270.1	1278.6	1260.7	1232.3	1212.5	1203.1	1200.3
42.5°	3967.8	2083.5	1283.3	1238.9	1281.4	1229.5	1168.2	1136.1	1153.1	1160.6
45°	4053.7	1897.6	1196.5	1200.3	1267.3	1193.7	1123.8	1092.7	1099.3	1101.2
47.5°	4171.7	1671.1	1103.1	1138.0	1220.1	1169.1	1096.5	1052.1	1021.0	1006.8
50°	4334.9	1403.1	1005.9	1068.2	1173.8	1151.2	1054.0	1006.8	949.3	936.1
52.5°	4448.1	1153.1	925.7	1009.7	1132.3	1115.3	1020.0	958.7	898.3	887.0
55°	4386.8	957.8	855.8	944.5	1077.6	1071.0	991.7	909.6	862.5	853.0
57.5°	4080.1	834.1	802.1	883.2	1010.6	1033.2	954.0	868.1	834.1	827.5
60°	3495.1	756.8	768.1	841.7	955.9	995.5	916.2	845.5	822.8	818.1
62.5°	2711.9	704.9	742.6	811.5	913.4	969.1	895.5	842.6	834.1	828.5
65°	1942.9	663.4	715.3	781.3	874.7	944.5	887.9	838.9	840.7	836.0
67.5°	1320.1	626.6	682.2	747.3	837.0	922.8	877.5	825.7	849.2	843.6
70°	923.8	590.7	643.5	703.9	789.8	892.6	858.7	805.8	803.9	781.3
72.5°	720.9	543.5	590.7	643.5	729.4	850.2	820.9	761.5	730.3	706.8
73°	687.9	532.2	577.5	630.3	716.2	839.8	810.6	749.2	714.3	692.6
75°	569.0	483.1	524.6	571.8	659.6	790.7	759.6	693.5	649.2	636.0
77.5°	447.3	413.3	452.9	495.4	581.3	719.0	684.1	620.9	596.4	585.0
80°	331.2	342.5	377.4	415.2	503.9	642.6	611.5	548.2	657.7	630.3
82.5°	233.1	259.5	291.6	325.5	422.7	568.0	530.3	465.2	481.2	400.1
85°	137.8	169.8	200.0	229.3	304.8	470.9	437.8	370.8	303.8	289.7
87.5°	80.2	94.4	102.9	133.0	209.5	354.8	308.6	274.6	157.6	106.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)