

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: P300377

Luminaire Tested: **GLNA-AF-04-LED-E1-T4FT-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300377
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-04-LED-E1-T4FT-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
Forward Throw OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19448.9 lumens
Efficiency: N/A
Efficacy: 113.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B2 - U0 - G4

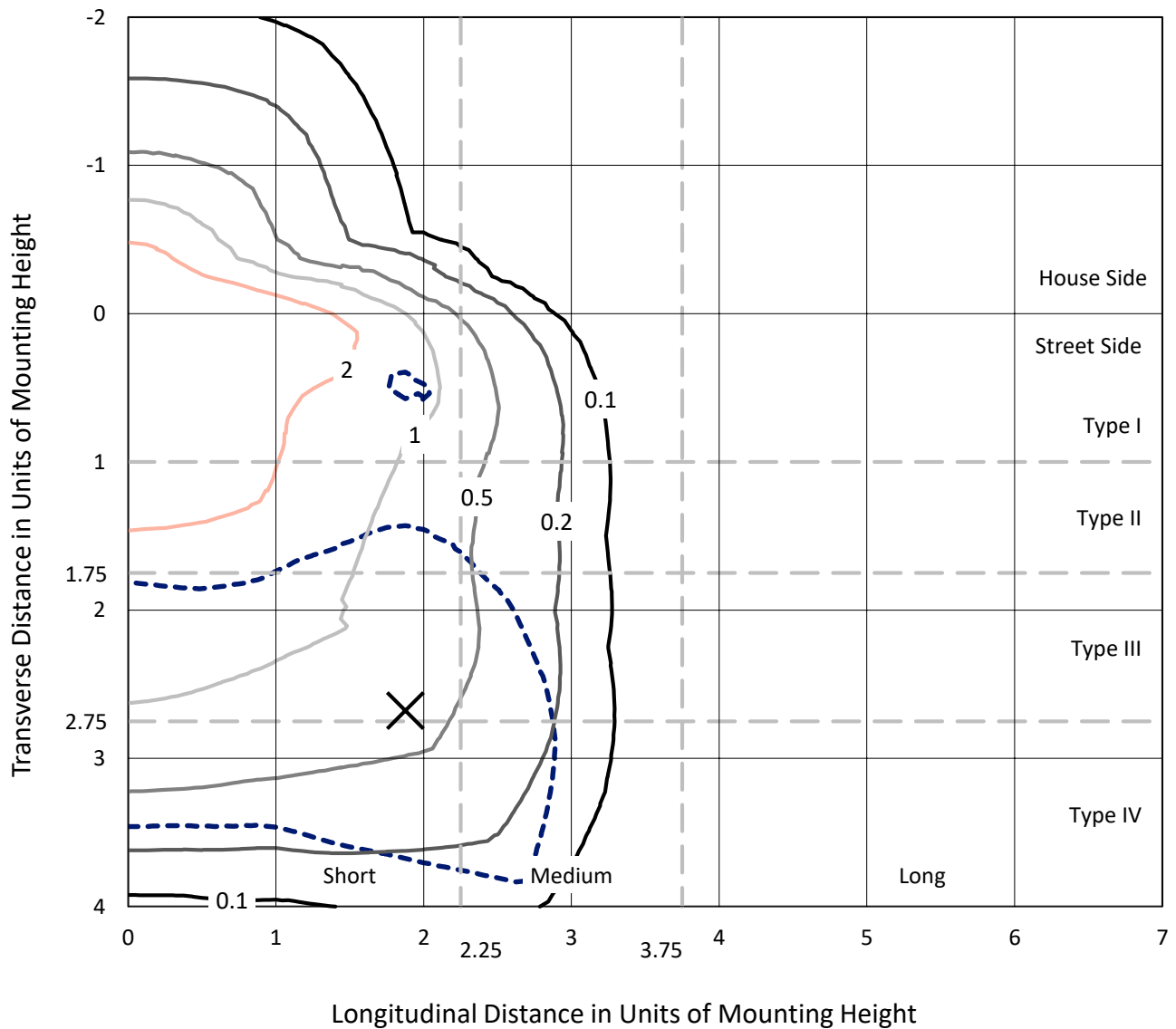
Input Watts (W): 171
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

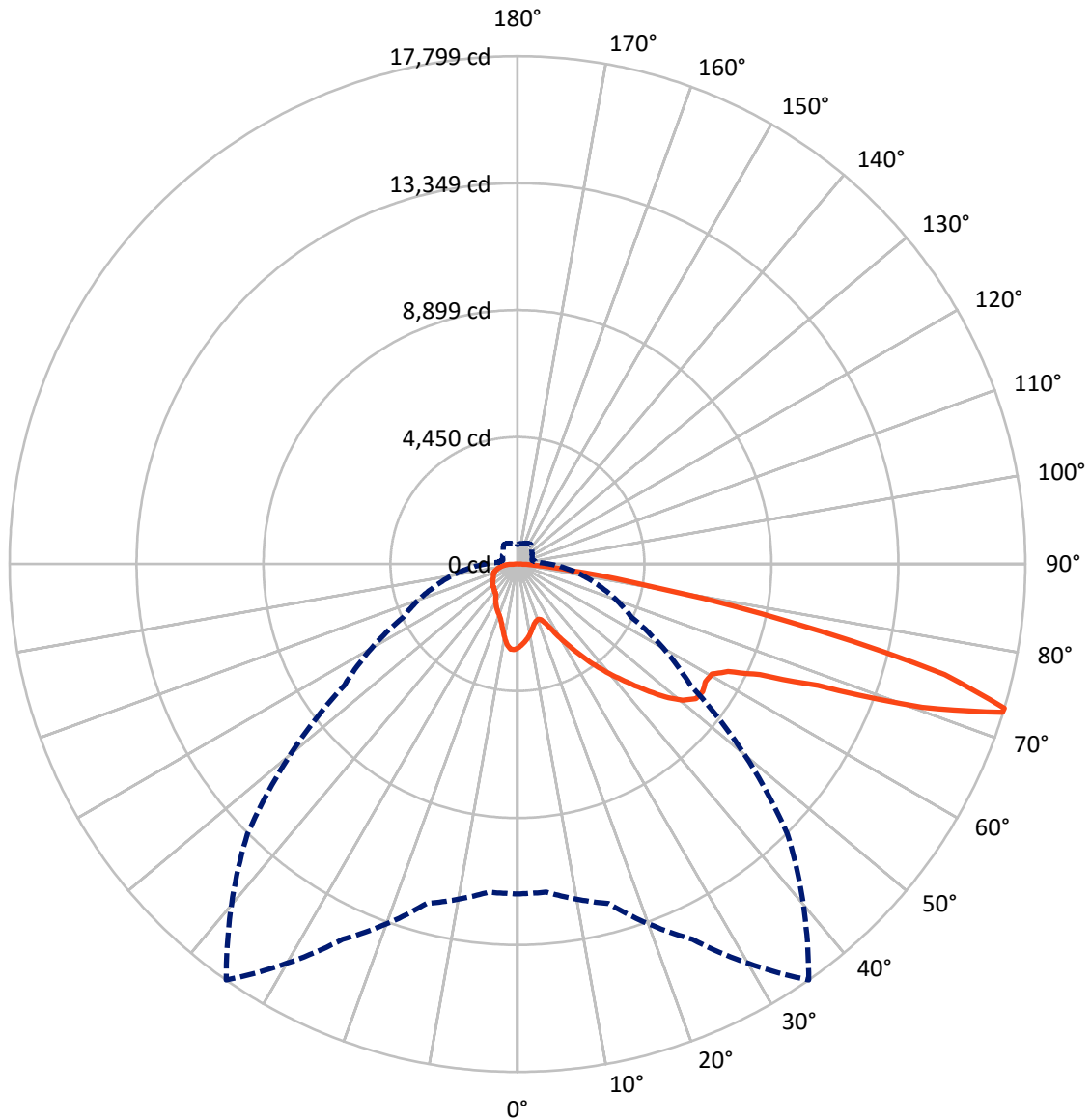
× Max cd
 - - - 1/2 Max cd



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	3709.4	0.0	3709.4
	% Fixture	19.1	0.0	19.1
Street Side	Lumens	15739.4	0.0	15739.4
	% Fixture	80.9	0.0	80.9
Total	Lumens	19448.9	0.0	19448.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	265.7	1.4
10°-20°	663.2	3.4
20°-30°	1072.2	5.5
30°-40°	1798.0	9.2
40°-50°	2771.5	14.3
50°-60°	3718.3	19.1
60°-70°	4953.5	25.5
70°-80°	3778.0	19.4
80°-90°	428.2	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°	19448.9	100.0
0°-180°	19448.9	100.0



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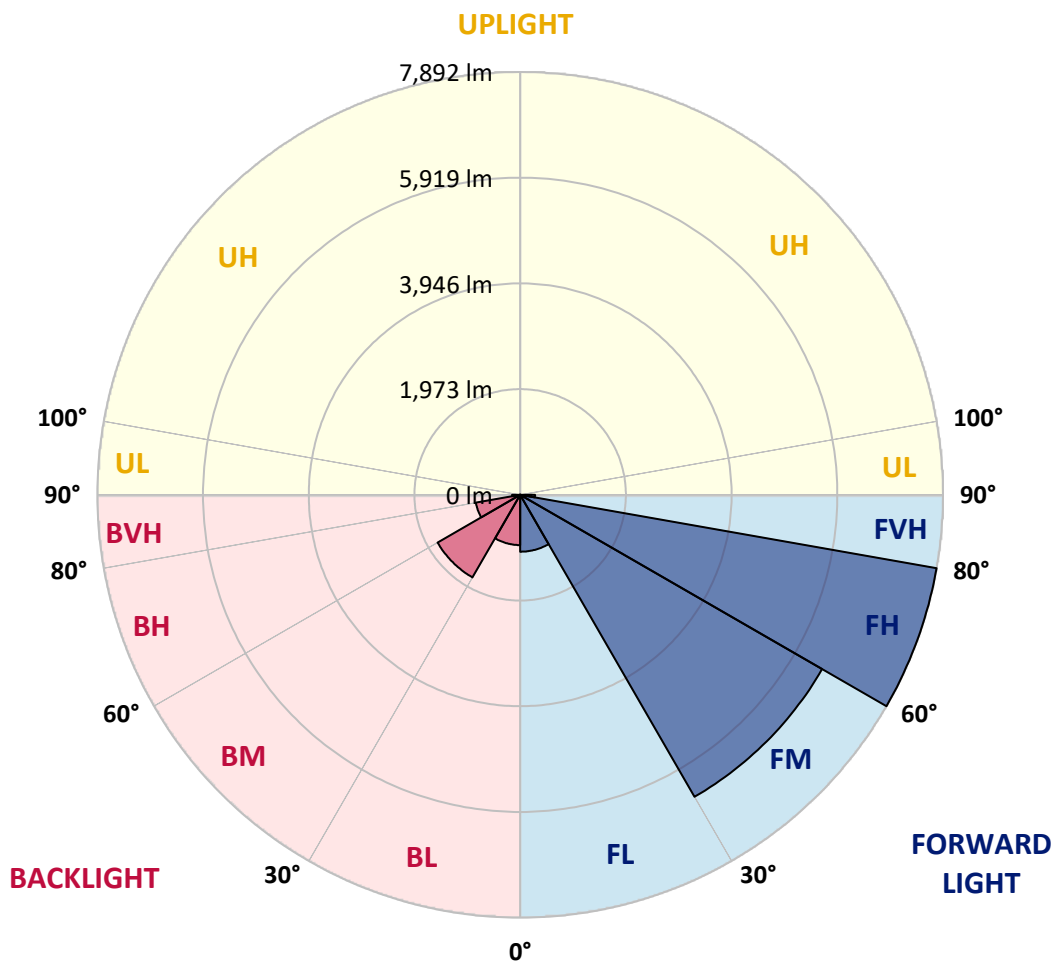
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1062.6	5.5			
FM	(30°-60°)	6507.7	33.5			
FH	(60°-80°)	7892.3	40.6			G4/12000
FVH	(80°-90°)	276.8	1.4			G3/500
BL	(0°-30°)	938.7	4.8	B2/1000		
BM	(30°-60°)	1780.1	9.2	B2/2500		
BH	(60°-80°)	839.2	4.3	B2/1000		G2/1000
BVH	(80°-90°)	151.4	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°	2935.4	2935.4	2935.4	2935.4	2935.4	2935.4	2935.4	2935.4	2935.4	2935.4	2935.4
2.5°	2819.6	2825.2	2818.7	2827.1	2841.1	2856.1	2866.3	2881.3	2898.1	2921.4	2927.0
5°	2687.0	2695.4	2695.4	2710.4	2737.4	2761.7	2784.1	2808.4	2843.9	2884.1	2899.9
7.5°	2541.3	2546.0	2554.4	2576.8	2616.0	2650.6	2682.3	2721.6	2770.1	2823.4	2851.4
10°	2365.7	2372.3	2385.3	2417.1	2470.3	2518.0	2563.7	2617.9	2679.5	2745.8	2781.3
12.5°	2241.5	2239.6	2245.2	2268.6	2315.3	2373.2	2439.5	2508.6	2584.3	2661.8	2704.7
15°	2199.5	2189.2	2167.7	2162.1	2187.3	2245.2	2321.8	2406.8	2497.4	2590.8	2644.0
17.5°	2225.6	2207.9	2149.0	2106.1	2102.3	2146.2	2227.5	2322.8	2427.4	2541.3	2607.6
20°	2390.0	2348.0	2203.2	2103.3	2068.7	2090.2	2161.2	2262.1	2385.3	2536.6	2621.6
22.5°	2783.2	2721.6	2414.3	2228.4	2111.7	2085.5	2138.8	2246.2	2390.0	2594.5	2702.9
25°	3355.7	3267.9	2776.7	2540.4	2299.4	2160.2	2172.4	2282.6	2456.3	2729.0	2859.8
27.5°	3807.8	3750.8	3250.2	2980.3	2641.2	2362.0	2281.7	2374.1	2591.7	2949.4	3083.0
30°	4076.7	4042.2	3756.4	3479.0	3077.4	2683.3	2490.9	2546.0	2803.7	3254.9	3365.1
32.5°	4388.7	4368.1	4228.0	3973.1	3548.1	3105.4	2822.4	2802.8	3087.7	3621.9	3672.3
35°	4711.8	4705.3	4623.1	4440.0	4053.4	3662.1	3262.3	3129.7	3396.8	4003.0	3971.2
37.5°	5012.6	5001.4	4953.7	4847.3	4582.0	4259.8	3710.6	3465.0	3730.2	4367.2	4226.2
40°	5566.4	5478.6	5315.2	5234.8	5116.2	4763.2	4066.5	3777.9	4075.8	4714.6	4446.6
42.5°	6241.7	6098.8	5794.3	5684.1	5667.3	5160.1	4309.3	4081.4	4424.2	5059.3	4663.3
45°	6773.1	6638.6	6376.1	6237.0	6298.6	5519.7	4553.1	4405.5	4782.8	5420.7	4886.5
47.5°	7340.0	7128.9	6781.5	6823.5	6958.0	5859.7	4801.5	4753.9	5176.0	5825.1	5163.9
50°	7360.5	7199.0	7046.7	7298.0	7507.2	6172.5	5112.5	5119.0	5657.0	6334.1	5532.8
52.5°	6933.7	6899.2	7141.1	7536.1	7837.8	6420.0	5466.5	5496.4	6272.5	6918.8	5938.1
55°	6784.3	6745.1	7024.3	7453.0	7882.6	6624.6	5850.3	5904.5	7016.8	7535.2	6333.2
57.5°	7148.5	7061.7	7080.4	7413.8	7773.4	6848.7	6268.7	6378.0	7825.7	8074.1	6587.2
60°	8166.5	7980.7	7627.7	7619.2	7832.2	7185.0	6752.5	6886.1	8666.2	8331.9	6488.2
62.5°	9594.6	9408.7	8747.5	8316.9	8285.2	7739.7	7346.5	7382.0	9151.9	7982.6	5883.9
65°	11140.3	10974.0	10235.3	9627.3	9334.0	8658.7	8036.7	7603.4	8993.1	7021.5	4826.7
67.5°	13016.6	12838.2	12203.1	11641.8	11359.8	10141.9	8521.5	7391.4	7985.4	5439.4	3469.7
70°	14328.8	14146.7	13896.4	14351.2	15041.4	12281.6	8584.0	6529.3	5964.3	3615.4	2088.3
72.5°	12616.9	12531.9	12988.6	14904.1	17778.9	13579.8	7759.3	4753.9	3464.1	1919.3	1208.5
73°	11559.6	11540.9	12319.9	14516.5	17798.5	13379.9	7397.9	4418.6	2970.9	1697.9	1104.9
75°	5219.9	5370.3	7077.6	11088.0	15463.6	11025.4	5206.8	2534.8	1678.3	1173.1	834.0
77.5°	1254.3	1306.6	2214.4	5265.7	9765.5	6570.4	2359.2	1253.4	1073.1	828.4	608.9
80°	534.2	552.0	852.7	1945.4	4597.9	2645.9	1087.1	839.6	742.5	578.1	426.8
82.5°	297.0	315.7	483.8	882.6	1855.8	902.2	663.1	584.7	488.5	348.4	277.4
85°	168.1	178.4	283.0	493.1	786.4	362.4	396.9	388.5	275.5	179.3	136.4
87.5°	79.4	85.9	136.4	228.8	308.2	142.0	201.7	222.3	172.8	109.3	71.0
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°	2935.4	2935.4	2935.4	2935.4	2935.4	2935.4	2935.4	2935.4	2935.4	2935.4
2.5°	2933.6	2950.4	2970.0	2980.3	2989.6	3000.8	3012.0	3012.0	3013.9	3014.8
5°	2913.0	2947.6	2978.4	2991.5	2994.3	2994.3	2991.5	2976.5	2963.5	2969.1
7.5°	2870.1	2920.5	2946.6	2942.0	2906.5	2865.4	2830.8	2788.8	2767.3	2763.6
10°	2808.4	2866.3	2871.0	2824.3	2736.5	2648.7	2575.9	2504.9	2471.3	2462.9
12.5°	2740.2	2793.5	2763.6	2667.4	2526.4	2398.4	2305.9	2234.0	2202.3	2193.9
15°	2685.1	2721.6	2645.9	2494.6	2317.2	2181.7	2105.1	2051.9	2029.5	2023.0
17.5°	2656.2	2663.7	2525.4	2320.9	2132.2	2019.2	1971.6	1946.4	1938.0	1933.3
20°	2670.2	2617.9	2410.6	2159.3	1980.9	1901.5	1890.3	1883.8	1881.9	1879.1
22.5°	2740.2	2603.9	2305.0	2006.1	1848.3	1813.8	1823.1	1822.2	1820.3	1818.4
25°	2865.4	2616.0	2202.3	1860.4	1737.2	1729.7	1746.5	1746.5	1739.0	1739.0
27.5°	3030.7	2641.2	2087.4	1722.2	1636.3	1637.2	1650.3	1646.6	1638.2	1632.6
30°	3232.4	2657.1	1952.9	1598.0	1542.0	1538.2	1542.0	1526.1	1500.9	1499.0
32.5°	3438.8	2637.5	1796.9	1487.8	1442.0	1433.6	1430.8	1408.4	1379.5	1371.1
35°	3625.6	2565.6	1638.2	1400.0	1346.8	1328.1	1341.2	1333.7	1307.5	1301.0
37.5°	3762.0	2432.0	1495.3	1322.5	1278.6	1273.9	1282.3	1285.1	1254.3	1247.8
40°	3853.5	2250.8	1372.9	1257.1	1265.5	1247.8	1219.8	1200.1	1190.8	1188.0
42.5°	3927.3	2062.2	1270.2	1226.3	1268.3	1217.0	1156.2	1124.5	1141.3	1148.8
45°	4012.3	1878.2	1184.3	1188.0	1254.3	1181.5	1112.3	1081.5	1088.1	1089.9
47.5°	4129.0	1654.0	1091.8	1126.4	1207.6	1157.2	1085.3	1041.4	1010.5	996.5
50°	4290.6	1388.8	995.6	1057.2	1161.8	1139.4	1043.2	996.5	939.6	926.5
52.5°	4402.7	1141.3	916.2	999.3	1120.8	1103.9	1009.6	948.9	889.1	877.9
55°	4342.0	948.0	847.1	934.9	1066.6	1060.0	981.6	900.3	853.6	844.3
57.5°	4038.4	825.6	793.9	874.2	1000.3	1022.7	944.2	859.2	825.6	819.1
60°	3459.4	749.0	760.2	833.1	946.1	985.3	906.9	836.8	814.4	809.7
62.5°	2684.2	697.7	735.0	803.2	904.1	959.2	886.3	834.0	825.6	820.0
65°	1923.0	656.6	707.9	773.3	865.8	934.9	878.9	830.3	832.2	827.5
67.5°	1306.6	620.1	675.3	739.7	828.4	913.4	868.6	817.2	840.6	835.0
70°	914.3	584.7	637.0	696.7	781.7	883.5	849.9	797.6	795.7	773.3
72.5°	713.5	538.0	584.7	637.0	722.0	841.5	812.5	753.7	722.9	699.5
73°	680.9	526.8	571.6	623.9	708.9	831.2	802.3	741.6	707.0	685.5
75°	563.2	478.2	519.3	566.0	652.8	782.7	751.8	686.5	642.6	629.5
77.5°	442.7	409.1	448.3	490.3	575.3	711.7	677.1	614.5	590.3	579.1
80°	327.8	339.0	373.6	410.9	498.7	636.0	605.2	542.6	651.0	623.9
82.5°	230.7	256.8	288.6	322.2	418.4	562.2	524.9	460.4	476.3	396.0
85°	136.4	168.1	198.0	227.0	301.7	466.0	433.4	367.0	300.7	286.7
87.5°	79.4	93.4	101.8	131.7	207.3	351.2	305.4	271.8	156.0	105.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)