

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: P299176

Luminaire Tested: **GLNA-AF-04-LED-E1-T3-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299176
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-04-LED-E1-T3-800
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19335.5 lumens
Efficiency: N/A
Efficacy: 113.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B3 - U0 - G3

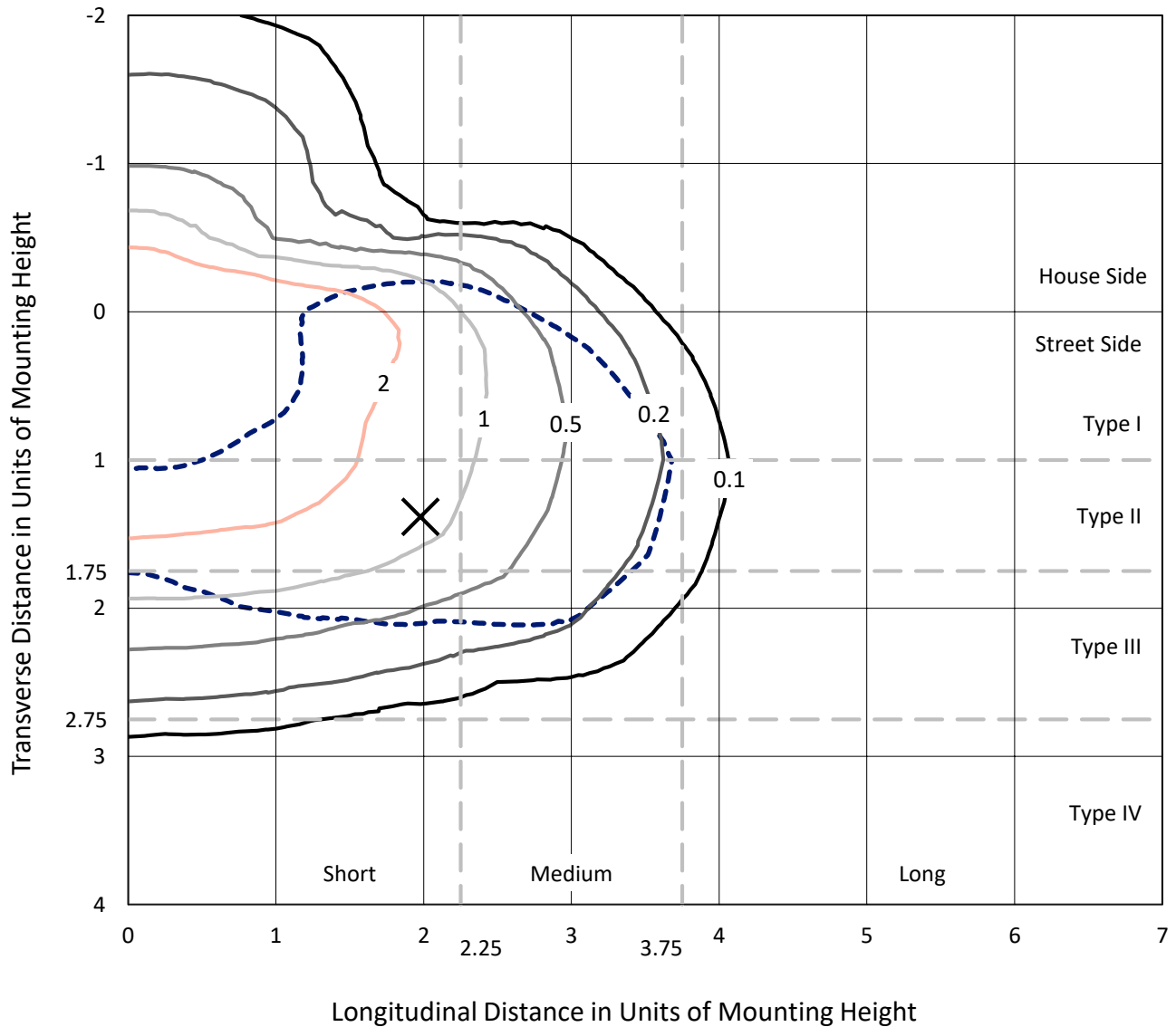
Input Watts (W): 171
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

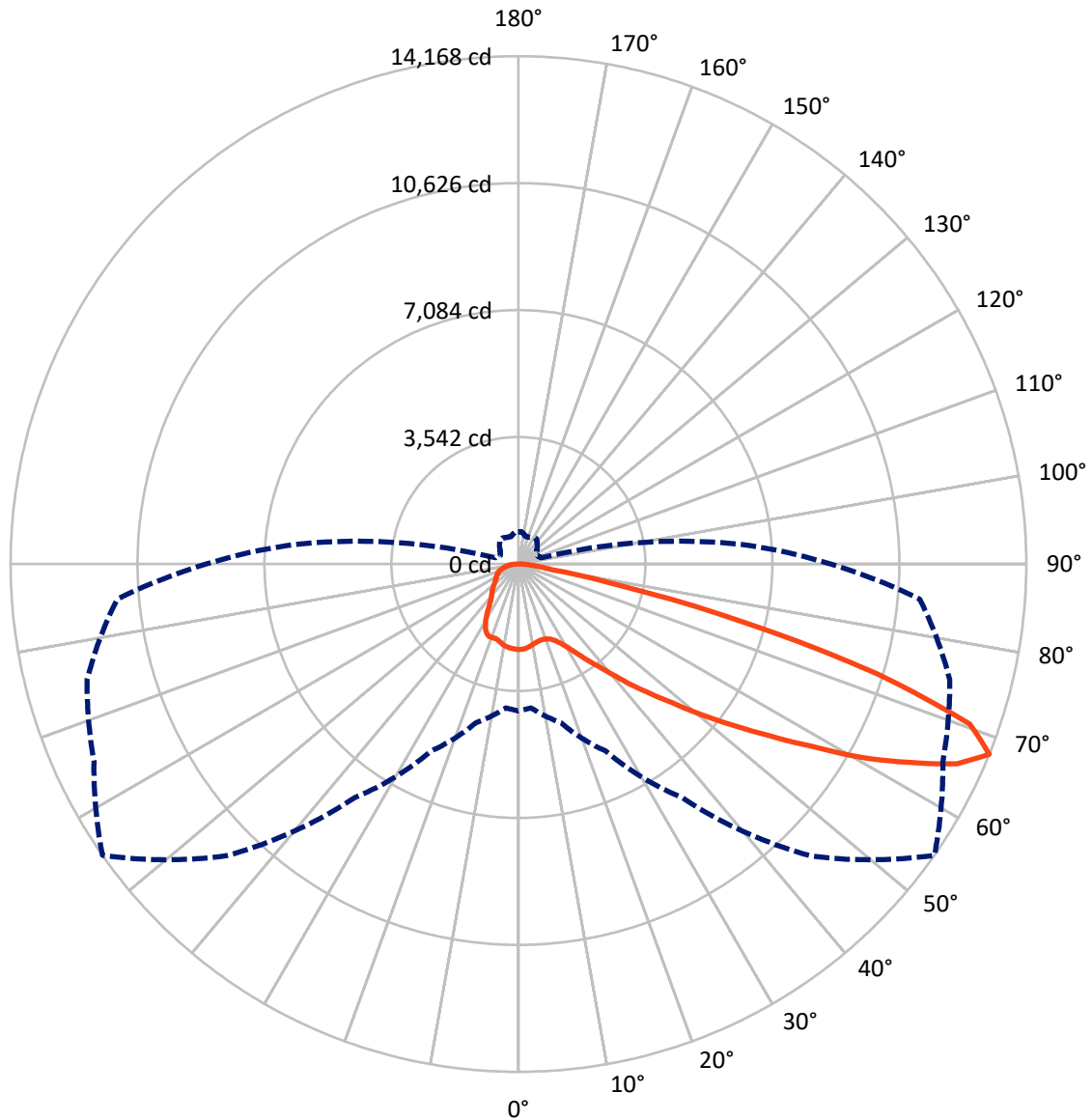
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.9 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	4176.9	0.0	4176.9
	% Fixture	21.6	0.0	21.6
Street Side	Lumens	15158.6	0.0	15158.6
	% Fixture	78.4	0.0	78.4
Total	Lumens	19335.5	0.0	19335.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	222.5	1.2
10°-20°	630.3	3.3
20°-30°	1055.8	5.5
30°-40°	1736.2	9.0
40°-50°	2922.6	15.1
50°-60°	4599.9	23.8
60°-70°	5489.5	28.4
70°-80°	2357.3	12.2
80°-90°	321.4	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°	19335.5	100.0
0°-180°	19335.5	100.0



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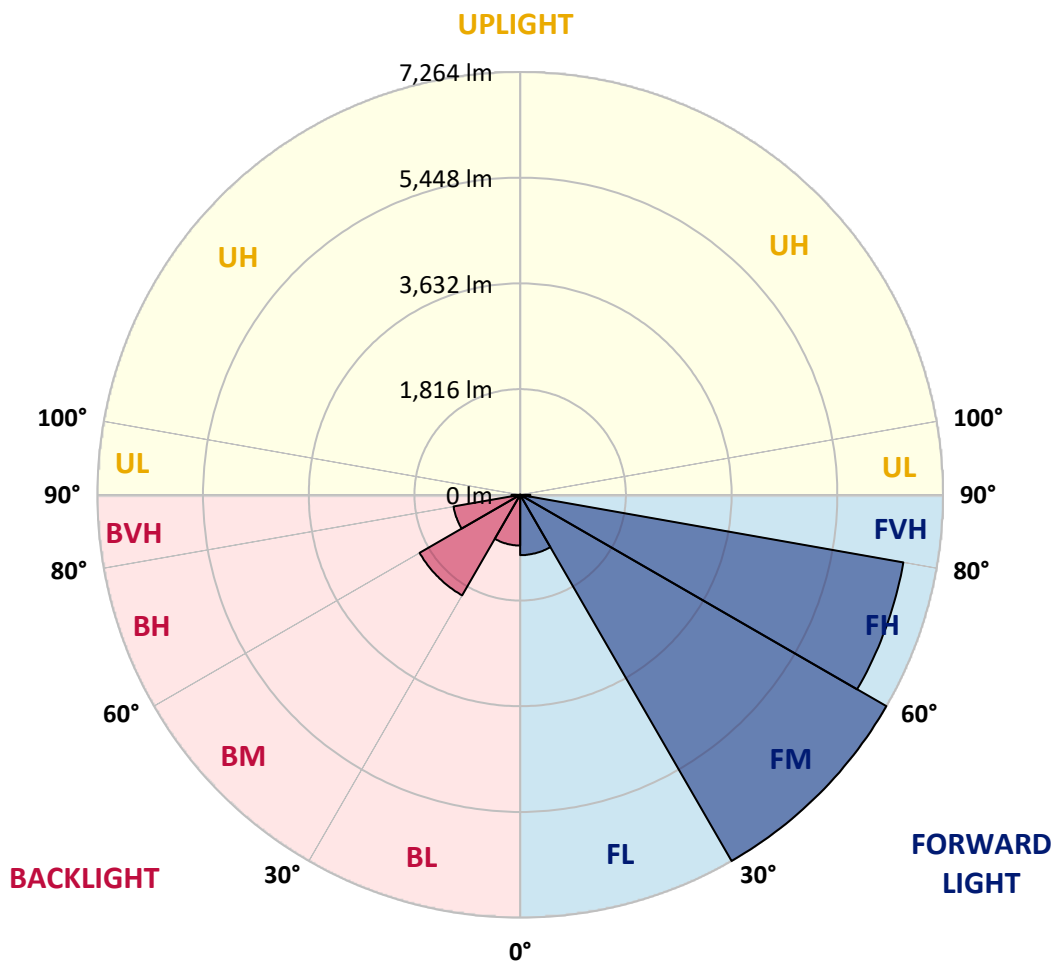
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1036.4	5.4			
FM (30°-60°)	7263.9	37.6			
FH (60°-80°)	6684.4	34.6			G3/7500
FVH (80°-90°)	174.0	0.9			G2/225
BL (0°-30°)	872.2	4.5	B2/1000		
BM (30°-60°)	1994.8	10.3	B2/2500		
BH (60°-80°)	1162.4	6.0	B3/2500		G3/2500
BVH (80°-90°)	147.4	0.8			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2384.3	2384.3	2384.3	2384.3	2384.3	2384.3	2384.3	2384.3	2384.3	2384.3	2384.3
2.5°	2363.7	2364.7	2366.5	2374.0	2380.5	2378.7	2379.6	2375.9	2374.9	2369.3	2374.9
5°	2333.9	2336.7	2337.6	2349.7	2357.2	2359.1	2356.3	2351.6	2346.0	2340.4	2343.2
7.5°	2265.7	2273.1	2274.1	2290.9	2303.0	2318.9	2319.8	2320.8	2318.0	2314.2	2319.8
10°	2222.7	2224.6	2223.6	2235.8	2245.1	2262.9	2273.1	2290.9	2298.4	2300.2	2304.0
12.5°	2219.9	2218.0	2215.2	2215.2	2212.4	2219.9	2238.6	2263.8	2281.6	2287.2	2291.8
15°	2249.8	2248.9	2239.5	2225.5	2207.8	2202.2	2218.0	2246.1	2269.4	2281.6	2286.2
17.5°	2317.0	2311.4	2296.5	2264.7	2226.5	2211.5	2213.4	2236.7	2263.8	2279.7	2284.4
20°	2440.3	2440.3	2408.6	2348.8	2280.6	2245.1	2228.3	2242.3	2268.5	2290.0	2296.5
22.5°	2653.2	2655.1	2601.9	2503.8	2389.0	2313.3	2271.3	2268.5	2299.3	2323.6	2331.0
25°	2954.9	2947.4	2872.7	2732.6	2558.0	2432.8	2360.0	2343.2	2369.3	2396.4	2405.8
27.5°	3306.1	3279.0	3190.2	3021.2	2795.2	2612.2	2500.1	2473.0	2498.2	2529.0	2538.4
30°	3653.5	3625.5	3519.9	3335.0	3083.8	2852.2	2691.5	2647.6	2683.1	2727.0	2732.6
32.5°	4000.9	4000.9	3883.2	3667.5	3393.8	3138.9	2946.5	2894.2	2953.0	3006.3	3018.4
35°	4416.5	4418.3	4304.4	4044.8	3750.6	3480.7	3268.7	3230.4	3319.1	3356.5	3385.4
37.5°	4927.3	4937.6	4791.0	4477.2	4155.0	3871.1	3618.9	3566.6	3655.3	3757.1	3850.5
40°	5479.3	5492.3	5330.8	4944.1	4621.9	4325.0	4052.3	3957.9	4105.5	4299.7	4420.2
42.5°	6006.0	6073.2	5917.3	5519.4	5172.9	4865.7	4589.3	4452.0	4636.9	4930.1	5034.7
45°	6767.1	6815.7	6543.9	6183.4	5857.5	5513.8	5147.7	5003.0	5261.7	5631.5	5653.0
47.5°	7274.3	7237.8	7099.6	6875.5	6669.1	6347.8	5796.8	5638.0	5981.7	6416.9	6296.4
50°	7544.2	7555.4	7536.7	7549.8	7557.2	7355.5	6592.5	6374.9	6784.9	7310.7	7033.3
52.5°	7796.3	7721.6	7783.2	8089.6	8459.4	8384.7	7458.2	7231.3	7646.0	8302.5	7812.2
55°	7790.7	7676.8	7877.6	8418.3	9220.5	9306.5	8430.4	8168.9	8556.5	9366.2	8637.8
57.5°	7515.2	7520.8	7829.9	8537.8	9751.0	10173.1	9558.6	9166.4	9522.2	10444.0	9391.4
60°	7136.0	7187.4	7632.9	8518.2	10175.9	10883.8	10942.7	10241.3	10468.2	11423.6	10015.3
62.5°	6524.3	6578.5	7193.0	8314.6	10111.5	11568.4	12194.1	11461.0	11457.3	12017.6	10198.3
65°	5559.6	5543.7	6189.0	7553.5	9570.7	12074.6	13437.2	12515.4	12202.5	12026.9	9830.4
67.5°	4099.9	4028.9	4582.7	5752.9	7955.1	11507.7	14168.4	13064.5	12456.5	11235.9	8705.9
70°	2127.5	2056.5	2504.8	3359.3	5231.8	8981.4	13358.7	12780.6	11895.3	9418.5	6820.4
72.5°	909.6	897.5	1079.6	1473.7	2530.9	5180.4	10474.8	11062.2	10206.7	7017.4	4689.2
75°	611.7	608.0	676.2	803.2	1138.4	2102.2	6555.1	7852.3	7467.6	4351.1	2637.4
77.5°	480.0	475.4	515.5	577.2	737.8	829.3	2909.1	4215.7	3901.9	1894.0	1154.3
80°	375.4	371.7	396.9	430.5	530.5	523.0	957.3	1677.3	1298.1	725.7	561.3
82.5°	296.1	296.1	316.6	317.5	376.4	356.8	499.6	738.7	648.1	423.1	343.7
85°	270.8	270.8	292.3	237.2	245.6	225.1	310.1	438.0	410.9	173.7	149.4
87.5°	136.4	132.6	245.6	210.1	133.5	119.5	151.3	212.0	227.9	96.2	74.7
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°	2384.3	2384.3	2384.3	2384.3	2384.3	2384.3	2384.3	2384.3	2384.3	2384.3
2.5°	2373.1	2372.1	2374.0	2374.9	2382.4	2392.7	2397.4	2403.9	2407.6	2405.8
5°	2345.1	2346.9	2354.4	2360.0	2373.1	2389.9	2399.2	2406.7	2413.2	2410.4
7.5°	2321.7	2326.4	2337.6	2342.3	2349.7	2354.4	2353.5	2356.3	2361.9	2355.3
10°	2308.6	2314.2	2322.6	2316.1	2298.4	2273.1	2249.8	2237.7	2241.4	2236.7
12.5°	2295.6	2303.0	2296.5	2265.7	2216.2	2183.5	2165.7	2167.6	2176.0	2177.9
15°	2288.1	2290.9	2262.9	2205.0	2154.5	2149.9	2159.2	2157.3	2158.3	2158.3
17.5°	2288.1	2280.6	2228.3	2170.4	2148.9	2140.5	2111.6	2075.2	2059.3	2053.7
20°	2300.2	2280.6	2217.1	2178.8	2132.1	2060.2	1983.6	1916.4	1886.5	1878.1
22.5°	2336.7	2303.0	2248.9	2182.6	2049.9	1929.5	1808.1	1727.7	1673.6	1664.2
25°	2410.4	2373.1	2311.4	2133.1	1919.2	1747.4	1609.1	1519.5	1465.3	1457.8
27.5°	2539.3	2515.0	2345.1	2023.8	1745.5	1561.5	1433.6	1364.4	1324.3	1321.5
30°	2733.6	2721.4	2328.2	1862.2	1531.6	1381.3	1319.6	1279.5	1249.6	1248.6
32.5°	3043.6	2945.6	2273.1	1665.2	1336.4	1253.3	1228.1	1203.8	1180.5	1180.5
35°	3442.4	3126.7	2168.5	1454.1	1217.8	1182.3	1150.6	1112.3	1081.5	1079.6
37.5°	3911.2	3238.8	1980.8	1284.1	1161.8	1134.7	1088.0	1031.0	976.9	967.5
40°	4384.7	3272.4	1716.5	1179.5	1126.3	1087.1	1030.1	962.9	910.6	907.8
42.5°	4819.0	3208.0	1436.4	1107.6	1090.8	1038.5	978.7	919.0	877.9	876.9
45°	5183.2	3040.8	1201.0	1039.4	1053.5	994.6	941.4	892.8	861.1	854.5
47.5°	5526.0	2804.5	1035.7	967.5	1016.1	970.3	925.5	879.7	848.9	844.3
50°	5923.8	2549.6	919.9	897.5	983.4	961.9	938.6	891.0	839.6	834.0
52.5°	6405.7	2329.2	829.3	835.9	958.2	973.1	972.2	922.7	833.1	825.6
55°	6943.6	2084.5	761.1	785.4	947.9	993.7	980.6	952.6	838.7	827.4
57.5°	7473.2	1798.7	713.5	747.1	933.0	991.8	940.5	900.3	851.7	835.9
60°	7870.1	1414.9	677.1	713.5	900.3	961.0	896.6	843.3	848.9	836.8
62.5°	7896.2	1093.6	633.2	684.6	850.8	930.2	867.6	818.1	861.1	849.9
65°	7432.1	826.5	591.2	650.0	797.6	910.6	839.6	804.1	886.3	874.1
67.5°	6257.2	664.9	555.7	614.5	744.3	869.5	814.4	791.0	908.7	887.2
70°	4517.3	566.9	521.1	571.6	696.7	822.8	792.0	767.7	848.0	814.4
72.5°	2781.2	491.2	481.9	514.6	660.3	774.2	758.3	723.8	763.9	736.9
75°	1388.7	425.9	438.0	458.6	608.9	719.1	702.3	667.7	673.4	667.7
77.5°	664.9	364.2	386.6	402.5	542.6	656.5	638.8	603.3	596.8	597.7
80°	421.2	304.5	325.9	337.1	484.7	583.7	566.0	530.5	605.2	561.3
82.5°	263.4	247.5	253.1	273.6	422.1	508.0	484.7	452.9	545.4	431.5
85°	145.7	172.8	180.2	198.0	325.0	424.9	401.6	361.4	324.1	318.5
87.5°	86.9	102.7	105.5	118.6	218.5	307.3	271.8	257.8	213.9	212.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)