

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: P298867

Luminaire Tested: **GLNA-AF-03-LED-E1-T2-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298867
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24139)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-03-LED-E1-T2-7027
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15440.7 lumens
Efficiency: N/A
Efficacy: 93.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B2 - U0 - G2

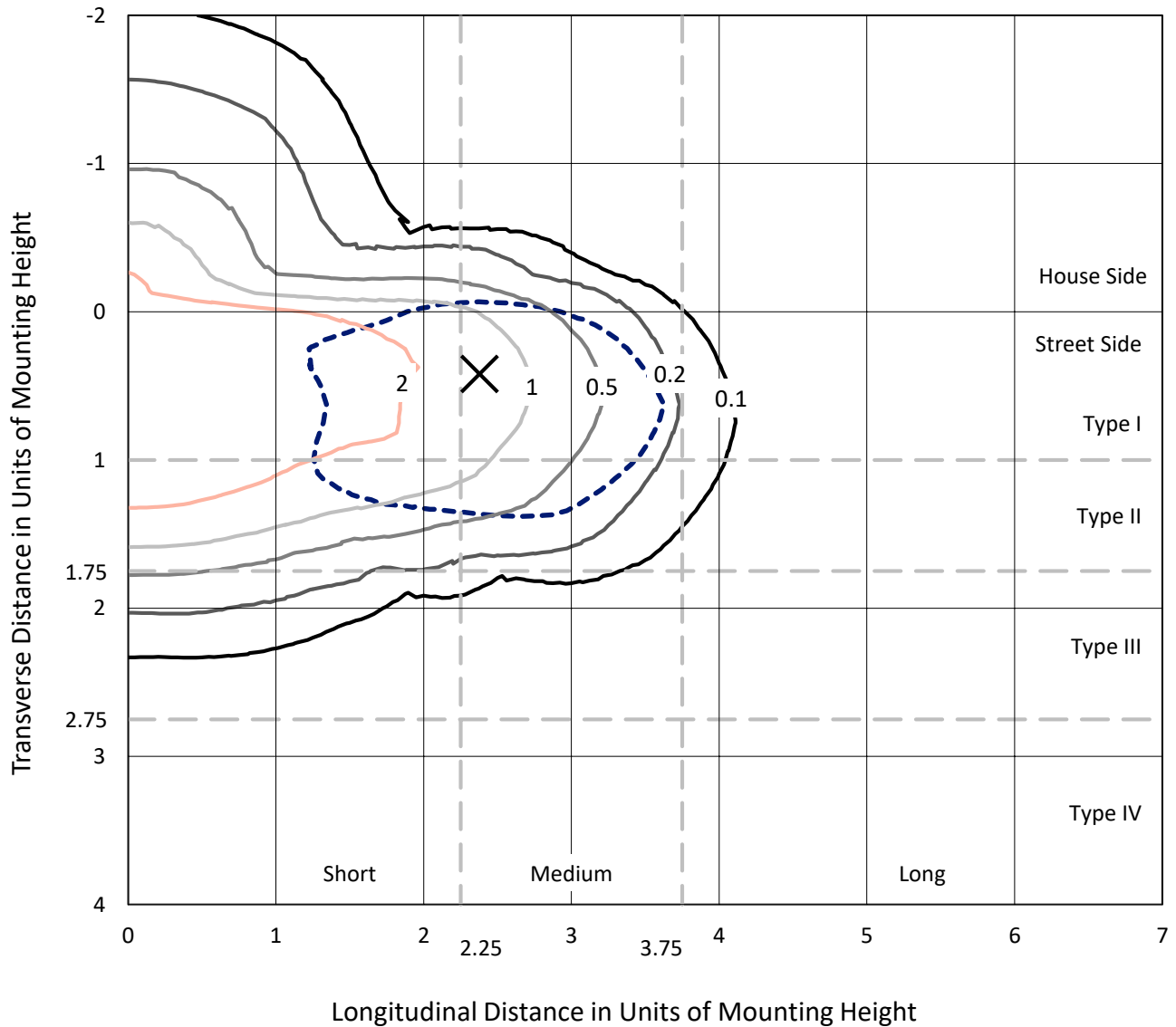
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

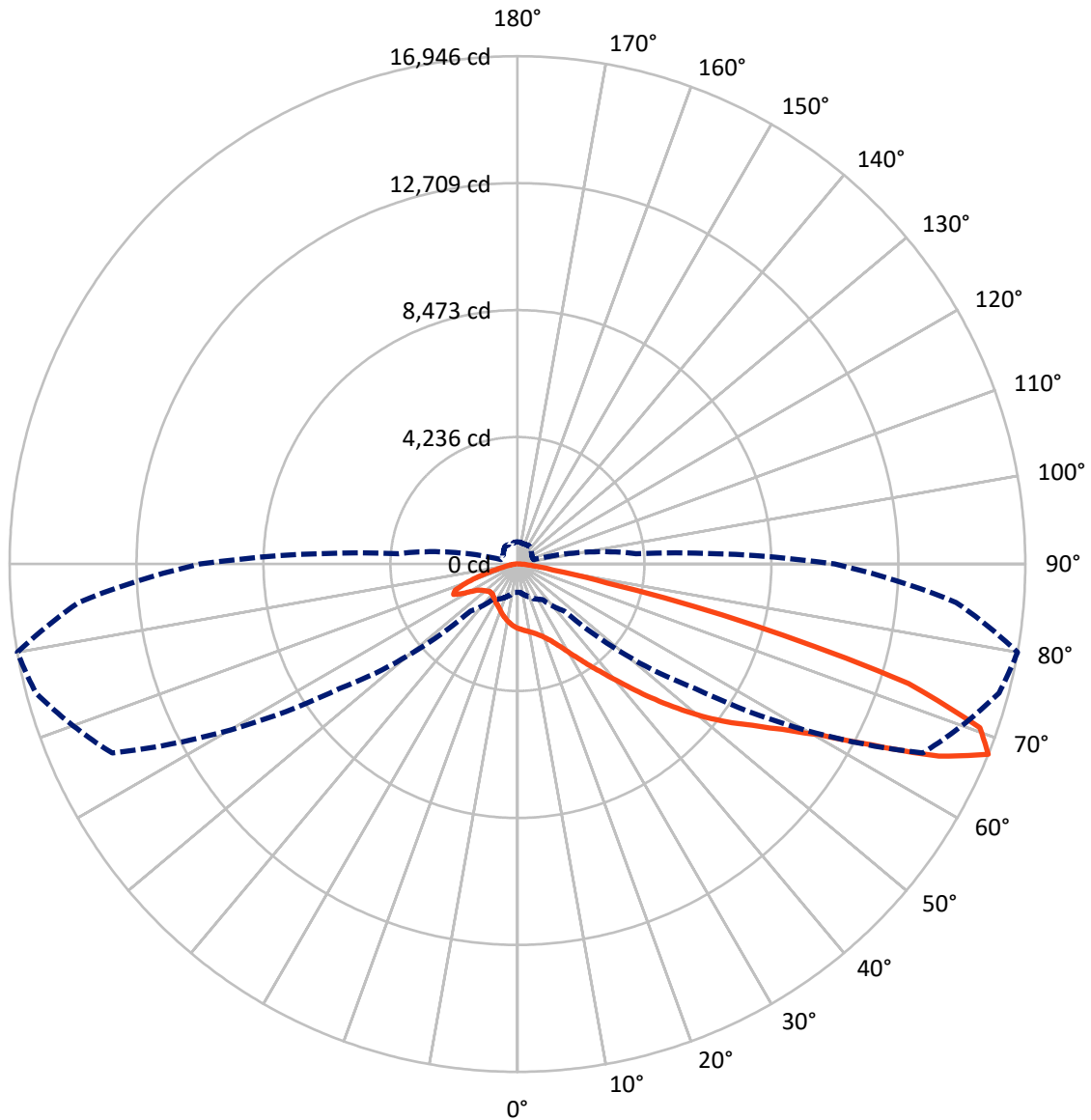
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 80-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2843.6	0.0	2843.6
	% Fixture	18.4	0.0	18.4
Street Side	Lumens	12597.1	0.0	12597.1
	% Fixture	81.6	0.0	81.6
Total	Lumens	15440.7	0.0	15440.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	197.9	1.3
10°-20°	570.0	3.7
20°-30°	943.5	6.1
30°-40°	1543.4	10.0
40°-50°	2492.0	16.1
50°-60°	3597.7	23.3
60°-70°	3970.2	25.7
70°-80°	1830.0	11.9
80°-90°	296.0	1.9
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°	15440.7	100.0
0°-180°	15440.7	100.0



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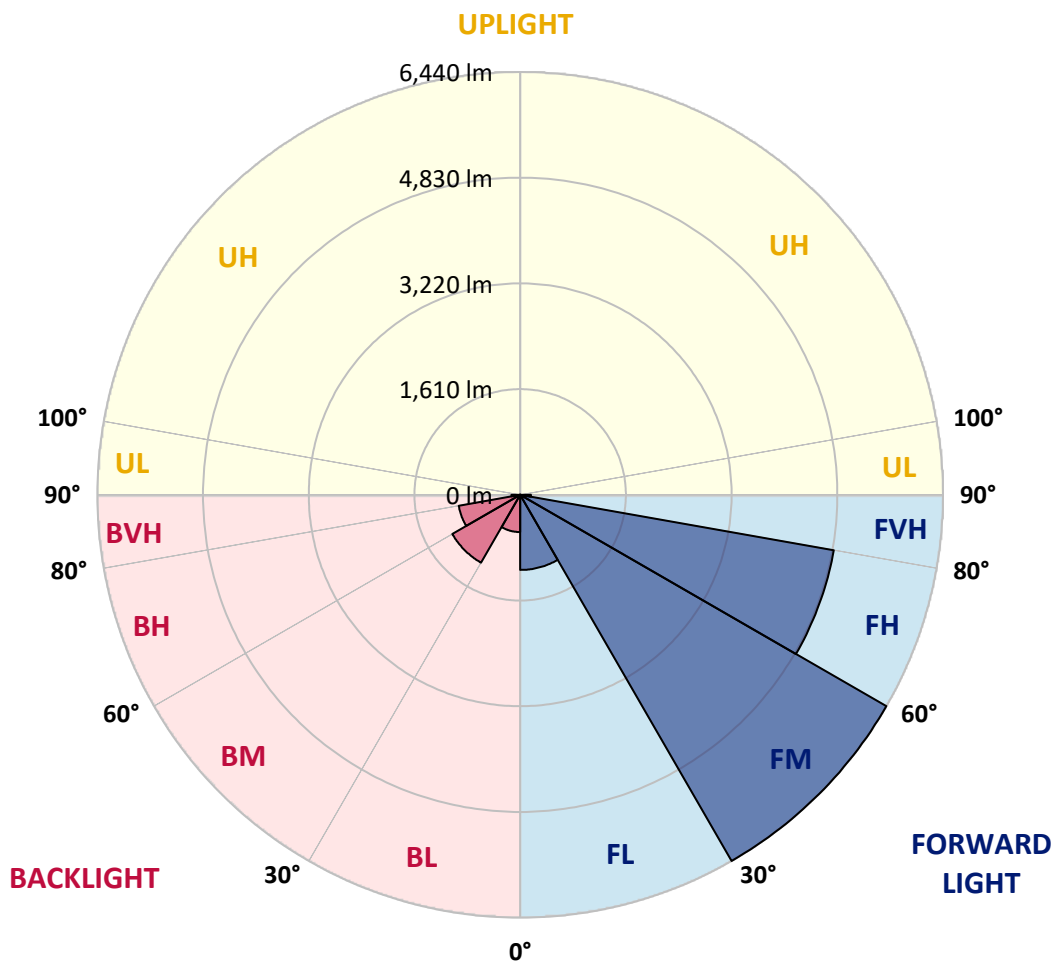
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1144.1	7.4			
FM	(30°-60°)	6439.9	41.7			
FH	(60°-80°)	4850.3	31.4			G2/5000
FVH	(80°-90°)	162.7	1.1			G2/225
BL	(0°-30°)	567.3	3.7	B2/1000		
BM	(30°-60°)	1193.1	7.7	B2/2500		
BH	(60°-80°)	949.9	6.2	B2/1000		G2/1000
BVH	(80°-90°)	133.3	0.9			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	80°	85°
0°	2145.2	2145.2	2145.2	2145.2	2145.2	2145.2	2145.2	2145.2	2145.2	2145.2	2145.2
2.5°	2346.6	2332.9	2335.2	2331.4	2320.0	2300.2	2279.0	2240.2	2199.9	2178.6	2161.9
5°	2542.7	2538.9	2533.6	2521.4	2492.6	2451.5	2400.6	2332.2	2258.4	2219.7	2182.4
7.5°	2689.4	2687.2	2680.3	2672.7	2644.6	2595.2	2518.4	2421.1	2313.9	2260.7	2202.9
10°	2701.6	2705.4	2710.7	2731.2	2735.0	2708.4	2630.1	2512.3	2371.7	2303.3	2229.5
12.5°	2598.2	2606.6	2627.1	2679.6	2735.0	2767.7	2727.4	2608.1	2439.3	2356.5	2263.0
15°	2461.4	2466.0	2491.0	2563.3	2662.8	2763.9	2801.9	2713.8	2526.8	2424.9	2313.2
17.5°	2402.9	2405.1	2422.6	2470.5	2563.3	2707.7	2843.8	2828.5	2633.9	2510.0	2374.7
20°	2373.2	2378.5	2403.6	2450.8	2509.3	2635.5	2849.8	2952.5	2761.7	2616.5	2452.3
22.5°	2457.6	2455.3	2464.4	2488.0	2537.4	2613.4	2845.3	3080.2	2924.3	2753.3	2553.4
25°	2654.5	2662.8	2646.9	2620.3	2636.2	2689.4	2869.6	3218.5	3128.1	2928.9	2685.6
27.5°	2935.0	2926.6	2903.0	2840.7	2808.0	2830.8	2950.2	3367.5	3381.2	3160.0	2860.5
30°	3214.7	3207.9	3185.1	3109.0	3042.2	3023.1	3106.8	3538.5	3683.0	3437.4	3074.8
32.5°	3505.1	3497.5	3476.2	3400.2	3319.6	3275.5	3329.5	3736.2	4038.7	3768.9	3327.2
35°	3863.1	3848.7	3803.8	3698.2	3619.1	3584.9	3610.0	3984.8	4449.2	4161.1	3633.6
37.5°	4199.9	4221.9	4176.3	4030.4	3927.7	3915.6	3943.7	4288.1	4891.6	4599.7	3985.5
40°	4538.1	4541.9	4500.9	4381.6	4275.9	4256.1	4326.8	4656.0	5413.8	5124.2	4413.5
42.5°	4887.8	4895.4	4826.2	4716.0	4638.5	4642.3	4722.9	5087.0	6012.9	5742.2	4906.1
45°	5302.1	5313.5	5237.5	5093.1	5022.4	5164.5	5131.1	5570.4	6669.6	6444.6	5471.6
47.5°	5735.4	5752.9	5695.1	5559.8	5471.6	5667.0	5539.3	6106.4	7376.6	7197.9	6092.7
50°	5971.8	5996.9	6053.1	6043.3	6024.3	5991.6	5994.6	6681.0	8105.6	7982.4	6731.2
52.5°	5844.9	5844.1	6049.3	6298.7	6564.7	6584.5	6549.5	7286.9	8786.7	8749.4	7332.5
55°	5264.1	5303.6	5614.5	6097.2	6823.9	7277.8	7381.1	7980.9	9455.6	9498.9	7942.9
57.5°	4297.2	4329.9	4749.5	5422.2	6474.3	7689.8	8563.9	8989.6	10203.6	10405.8	8755.5
60°	2914.4	2954.0	3398.7	4206.7	5533.2	7460.2	9689.7	10789.7	11099.1	11559.0	9895.7
62.5°	1712.6	1748.4	2111.0	2653.7	3895.8	6393.7	10183.8	13350.7	12521.3	13299.0	11635.0
65°	1179.0	1203.3	1379.7	1651.8	2238.7	4306.3	9571.2	15118.8	14709.8	15454.8	13651.7
67.5°	948.7	945.6	1085.5	1271.0	1441.3	2220.4	7237.5	14918.9	16634.5	16945.5	14698.4
70°	781.4	778.4	873.4	1027.0	1151.6	1250.5	3942.2	12589.7	16242.3	16368.5	13734.5
72.5°	653.7	656.8	717.6	831.6	944.9	941.8	1732.4	8856.6	12777.5	13650.2	10948.6
75°	551.9	553.4	593.7	674.3	767.0	758.6	939.6	4798.1	7427.5	8034.9	6069.1
77.5°	469.8	471.3	497.1	542.0	608.1	605.1	685.7	2073.0	3098.4	3060.4	2076.0
80°	418.8	418.8	431.0	439.4	475.9	462.2	508.5	995.8	1309.8	1209.4	828.6
82.5°	328.4	329.9	404.4	401.4	374.8	357.3	357.3	586.8	694.0	641.6	485.0
85°	184.7	184.0	260.7	314.7	329.9	251.6	249.3	328.4	377.8	332.9	234.9
87.5°	79.1	80.6	120.9	139.9	187.0	156.6	154.3	169.5	192.3	166.5	108.7
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2145.2	2145.2	2145.2	2145.2	2145.2	2145.2	2145.2	2145.2	2145.2	2145.2	2145.2
2.5°	2145.9	2126.2	2082.8	2028.9	1980.2	1948.3	1919.4	1877.6	1879.9	1851.0	1829.7
5°	2144.4	2103.4	2003.0	1883.7	1768.9	1686.0	1623.7	1567.4	1553.8	1527.2	1511.2
7.5°	2145.9	2079.0	1910.3	1719.5	1577.3	1472.4	1419.2	1389.6	1382.7	1373.6	1374.4
10°	2151.2	2057.0	1808.4	1565.9	1416.9	1347.8	1334.8	1344.0	1354.6	1357.6	1358.4
12.5°	2163.4	2037.2	1696.7	1429.1	1316.6	1295.3	1317.4	1348.5	1369.0	1378.9	1378.2
15°	2190.8	2022.0	1589.5	1321.9	1261.1	1272.5	1313.6	1357.6	1387.3	1401.0	1401.7
17.5°	2220.4	2000.0	1479.3	1239.8	1220.1	1248.9	1299.9	1351.6	1388.0	1403.3	1406.3
20°	2259.2	1972.6	1363.7	1178.2	1181.3	1214.0	1261.9	1313.6	1353.8	1366.8	1372.8
22.5°	2310.1	1943.0	1262.6	1128.1	1137.2	1162.3	1199.5	1244.4	1279.3	1285.4	1290.7
25°	2378.5	1911.0	1182.0	1082.5	1086.3	1100.7	1125.8	1152.4	1176.7	1169.9	1175.2
27.5°	2470.5	1883.7	1122.0	1040.7	1033.8	1036.9	1049.8	1058.1	1071.1	1052.1	1054.3
30°	2578.5	1854.0	1075.6	1004.2	985.2	979.8	982.9	987.4	997.3	971.5	967.7
32.5°	2703.9	1818.3	1032.3	972.2	945.6	935.0	936.5	948.7	986.7	970.7	962.4
35°	2849.8	1778.0	986.7	937.3	919.0	903.8	902.3	940.3	1053.6	1043.7	1036.1
37.5°	3020.9	1737.7	941.1	897.7	899.3	882.5	877.2	920.6	1066.5	1027.7	1022.4
40°	3238.3	1716.4	902.3	855.9	874.9	872.7	862.0	884.1	981.4	910.7	901.5
42.5°	3507.4	1719.5	873.4	811.1	846.1	870.4	853.7	854.4	889.4	836.2	827.8
45°	3839.6	1755.2	852.9	775.4	813.4	868.1	850.6	838.5	841.5	813.4	808.8
47.5°	4227.2	1828.9	838.5	745.7	782.2	859.7	849.9	833.9	827.1	811.8	808.0
50°	4658.3	1936.1	827.8	717.6	754.1	846.1	850.6	829.3	821.7	815.6	813.4
52.5°	5081.7	2058.5	811.8	693.3	732.0	829.3	852.9	824.8	816.4	811.8	809.6
55°	5553.7	2211.3	787.5	672.7	713.8	808.0	852.9	817.9	808.8	809.6	808.8
57.5°	6191.5	2458.4	758.6	655.3	691.7	782.2	838.5	810.3	798.9	799.7	800.4
60°	7188.1	2893.9	723.7	637.8	664.4	751.8	818.7	793.6	782.2	785.2	786.0
62.5°	8653.6	3533.2	678.1	611.9	635.5	719.1	791.3	772.3	760.9	768.5	768.5
65°	10177.0	4097.3	621.8	579.2	605.1	683.4	757.1	745.7	734.3	751.8	751.0
67.5°	10586.7	3971.1	565.6	543.5	574.7	643.9	716.1	710.0	703.9	734.3	732.8
70°	9404.7	3188.1	513.9	507.0	541.2	601.3	672.0	672.0	668.2	691.0	685.7
72.5°	7165.3	2260.7	464.5	468.3	503.2	554.9	624.1	629.4	623.3	634.7	630.2
75°	3835.8	1293.8	415.0	425.7	456.1	507.8	570.9	576.2	572.4	571.6	573.9
77.5°	1274.8	632.5	363.4	380.1	406.7	459.1	515.4	523.7	514.6	513.1	512.3
80°	567.8	397.6	306.3	328.4	352.0	403.6	456.9	463.7	453.8	467.5	450.0
82.5°	364.9	261.5	245.5	269.9	292.7	348.2	398.3	399.8	390.7	453.8	386.9
85°	177.1	161.9	184.7	206.8	226.5	273.7	329.9	330.7	307.9	280.5	270.6
87.5°	88.2	94.3	123.1	142.9	152.8	187.8	240.2	235.6	225.8	205.2	189.3
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)