

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: P299110

Luminaire Tested: **GLNA-AF-03-LED-E1-T3**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299110
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-03-LED-E1-T3
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18113.5 lumens
Efficiency: N/A
Efficacy: 109.1 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

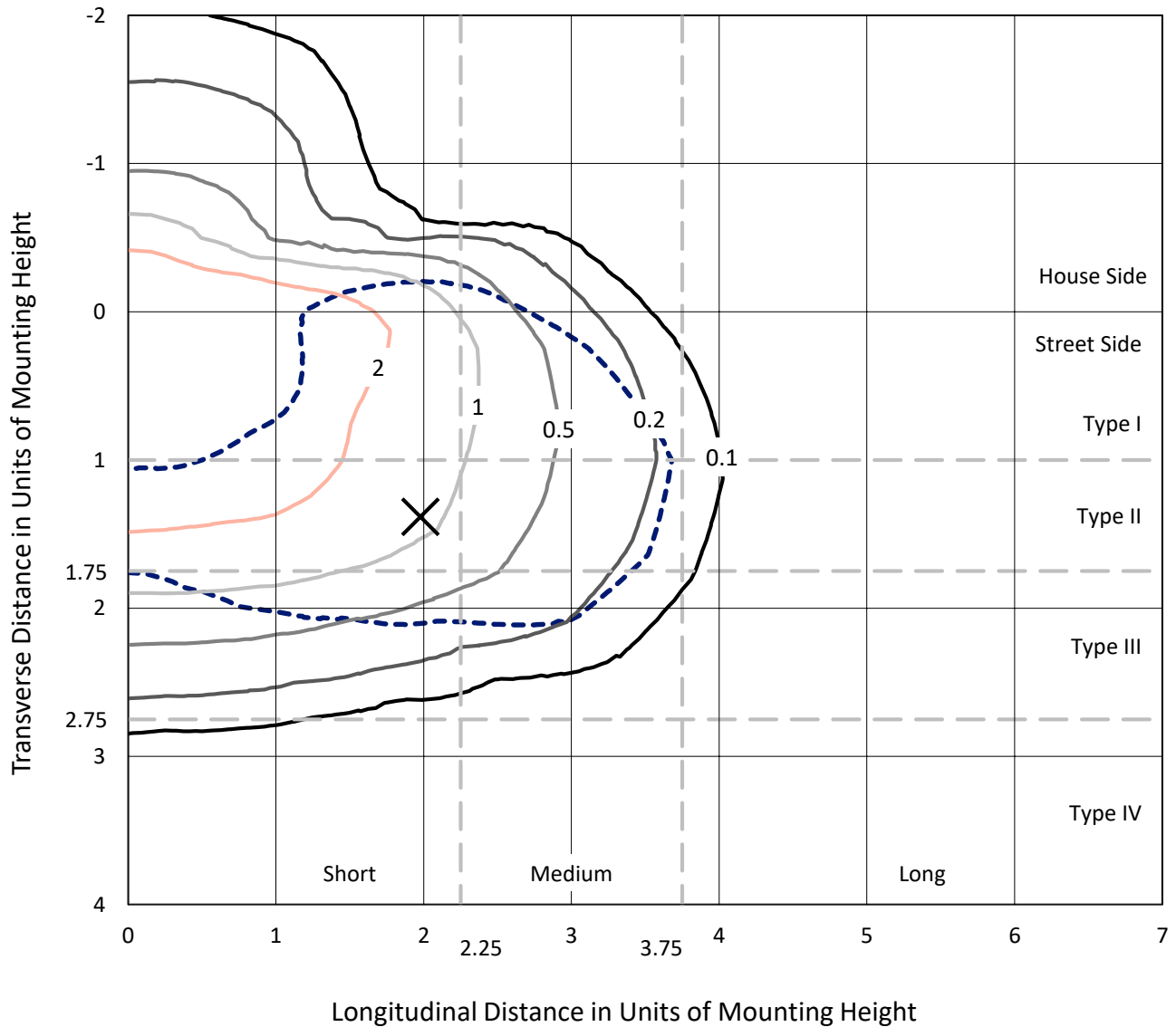
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

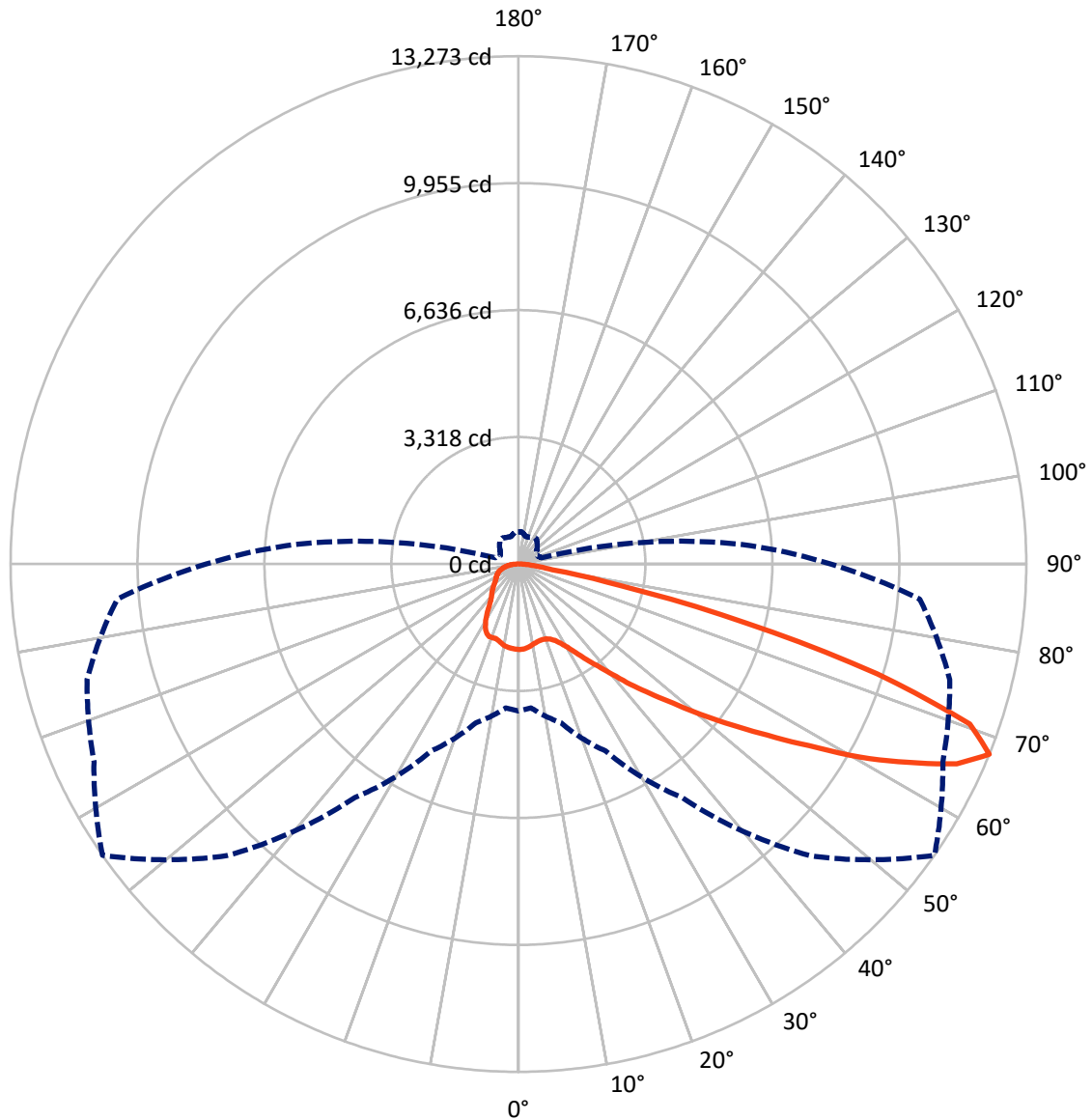
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.7 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	3912.9	0.0	3912.9
	% Fixture	21.6	0.0	21.6
Street Side	Lumens	14200.6	0.0	14200.6
	% Fixture	78.4	0.0	78.4
Total	Lumens	18113.5	0.0	18113.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	208.5	1.2
10°-20°	590.5	3.3
20°-30°	989.1	5.5
30°-40°	1626.5	9.0
40°-50°	2737.9	15.1
50°-60°	4309.2	23.8
60°-70°	5142.6	28.4
70°-80°	2208.3	12.2
80°-90°	301.1	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°	18113.5	100.0
0°-180°	18113.5	100.0



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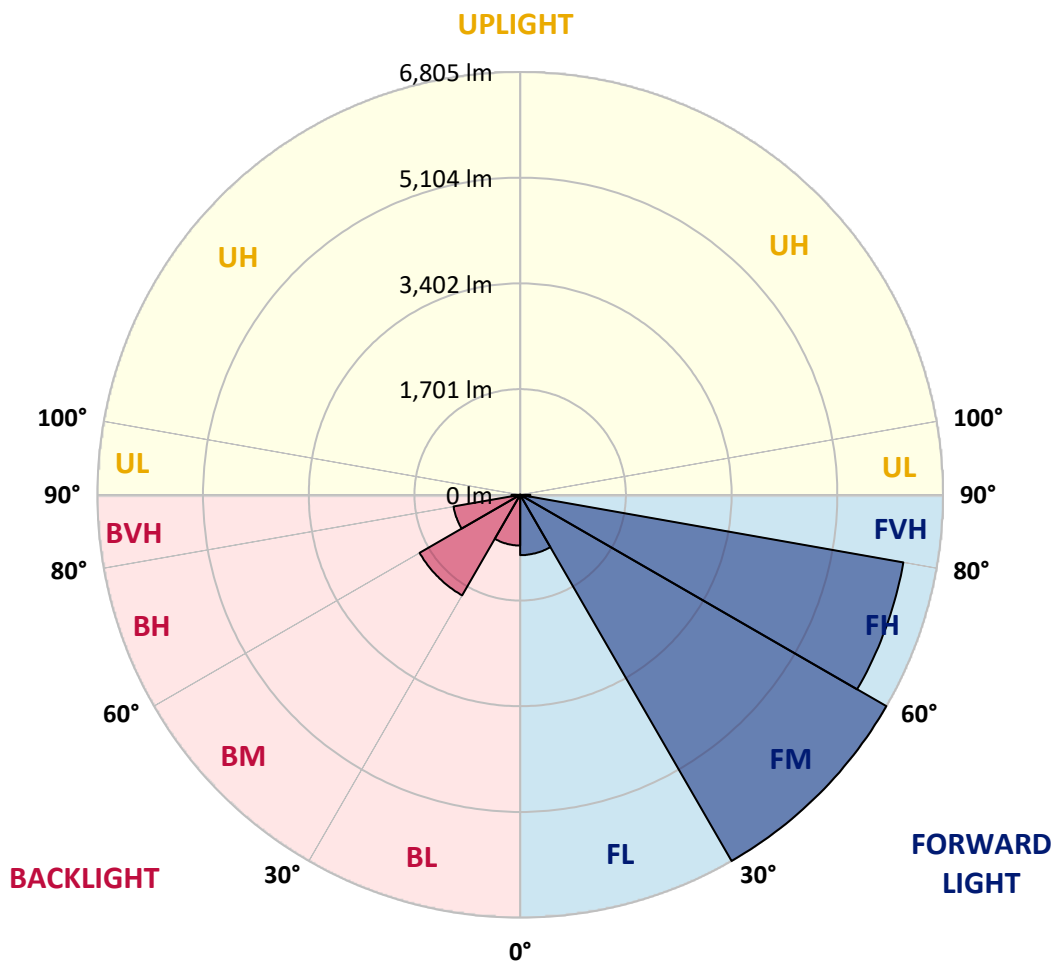
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	970.9	5.4			
FM (30°-60°)	6804.8	37.6			
FH (60°-80°)	6261.9	34.6			G3/7500
FVH (80°-90°)	163.0	0.9			G2/225
BL (0°-30°)	817.1	4.5	B2/1000		
BM (30°-60°)	1868.8	10.3	B2/2500		
BH (60°-80°)	1088.9	6.0	B3/2500		G3/2500
BVH (80°-90°)	138.1	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°	2233.6	2233.6	2233.6	2233.6	2233.6	2233.6	2233.6	2233.6	2233.6	2233.6	2233.6
2.5°	2214.3	2215.2	2217.0	2224.0	2230.1	2228.3	2229.2	2225.7	2224.8	2219.6	2224.8
5°	2186.3	2189.0	2189.8	2201.2	2208.2	2210.0	2207.3	2203.0	2197.7	2192.5	2195.1
7.5°	2122.5	2129.5	2130.4	2146.1	2157.5	2172.4	2173.2	2174.1	2171.5	2168.0	2173.2
10°	2082.2	2084.0	2083.1	2094.5	2103.2	2119.9	2129.5	2146.1	2153.1	2154.9	2158.4
12.5°	2079.6	2077.9	2075.2	2075.2	2072.6	2079.6	2097.1	2120.7	2137.4	2142.6	2147.0
15°	2107.6	2106.7	2098.0	2084.9	2068.2	2063.0	2077.9	2104.1	2126.0	2137.4	2141.7
17.5°	2170.6	2165.4	2151.4	2121.6	2085.7	2071.7	2073.5	2095.4	2120.7	2135.6	2140.0
20°	2286.1	2286.1	2256.3	2200.3	2136.5	2103.2	2087.5	2100.6	2125.1	2145.2	2151.4
22.5°	2485.6	2487.3	2437.4	2345.6	2238.0	2167.1	2127.7	2125.1	2154.0	2176.7	2183.7
25°	2768.2	2761.2	2691.2	2559.9	2396.3	2279.1	2210.8	2195.1	2219.6	2245.0	2253.7
27.5°	3097.1	3071.7	2988.6	2830.3	2618.5	2447.1	2342.1	2316.7	2340.3	2369.2	2377.9
30°	3422.6	3396.3	3297.5	3124.2	2888.9	2671.9	2521.4	2480.3	2513.6	2554.7	2559.9
32.5°	3748.0	3748.0	3637.8	3435.7	3179.3	2940.5	2760.3	2711.3	2766.4	2816.3	2827.6
35°	4137.4	4139.1	4032.4	3789.1	3513.6	3260.7	3062.1	3026.2	3109.4	3144.4	3171.5
37.5°	4615.9	4625.5	4488.2	4194.2	3892.4	3626.4	3390.2	3341.2	3424.3	3519.7	3607.2
40°	5133.0	5145.2	4993.9	4631.7	4329.8	4051.6	3796.1	3707.8	3846.0	4028.0	4140.9
42.5°	5626.4	5689.4	5543.3	5170.6	4846.0	4558.2	4299.2	4170.6	4343.8	4618.5	4716.5
45°	6339.4	6384.9	6130.4	5792.6	5487.3	5165.3	4822.4	4686.8	4929.1	5275.6	5295.7
47.5°	6814.5	6780.4	6650.9	6440.9	6247.6	5946.6	5430.4	5281.7	5603.7	6011.4	5898.5
50°	7067.4	7077.9	7060.4	7072.6	7079.6	6890.6	6175.8	5972.0	6356.1	6848.6	6588.8
52.5°	7303.6	7233.6	7291.3	7578.3	7924.7	7854.8	6986.9	6774.3	7162.7	7777.8	7318.5
55°	7298.3	7191.6	7379.7	7886.3	8637.8	8718.3	7897.6	7652.7	8015.7	8774.3	8091.9
57.5°	7040.2	7045.5	7335.1	7998.2	9134.7	9530.2	8954.5	8587.0	8920.4	9783.9	8797.9
60°	6685.0	6733.1	7150.5	7979.9	9532.8	10196.0	10251.1	9594.0	9806.6	10701.6	9382.3
62.5°	6112.0	6162.7	6738.4	7789.1	9472.4	10837.3	11423.4	10736.6	10733.1	11258.1	9553.8
65°	5208.2	5193.3	5797.9	7076.1	8965.9	11311.4	12587.9	11724.4	11431.3	11266.8	9209.1
67.5°	3840.8	3774.3	4293.1	5389.3	7452.3	10780.4	13272.9	12238.8	11669.3	10525.8	8155.7
70°	1993.0	1926.5	2346.5	3147.0	4901.1	8413.8	12514.4	11972.9	11143.5	8823.3	6389.3
72.5°	852.1	840.8	1011.4	1380.6	2371.0	4853.0	9812.8	10363.1	9561.7	6573.9	4392.8
75°	573.1	569.6	633.4	752.4	1066.5	1969.4	6140.8	7356.1	6995.6	4076.1	2470.7
77.5°	449.7	445.3	482.9	540.7	691.2	776.9	2725.3	3949.3	3655.3	1774.3	1081.4
80°	351.7	348.2	371.8	403.3	496.9	489.9	896.8	1571.3	1216.1	679.8	525.8
82.5°	277.3	277.3	296.6	297.5	352.6	334.2	468.1	692.0	607.2	396.3	322.0
85°	253.7	253.7	273.8	222.2	230.1	210.8	290.5	410.3	385.0	162.7	140.0
87.5°	127.7	124.2	230.1	196.9	125.1	112.0	141.7	198.6	213.5	90.1	70.0
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°	2233.6	2233.6	2233.6	2233.6	2233.6	2233.6	2233.6	2233.6	2233.6	2233.6
2.5°	2223.1	2222.2	2224.0	2224.8	2231.8	2241.5	2245.8	2252.0	2255.5	2253.7
5°	2196.8	2198.6	2205.6	2210.8	2223.1	2238.8	2247.6	2254.6	2260.7	2258.1
7.5°	2175.0	2179.3	2189.8	2194.2	2201.2	2205.6	2204.7	2207.3	2212.6	2206.5
10°	2162.7	2168.0	2175.9	2169.7	2153.1	2129.5	2107.6	2096.2	2099.7	2095.4
12.5°	2150.5	2157.5	2151.4	2122.5	2076.1	2045.5	2028.9	2030.6	2038.5	2040.2
15°	2143.5	2146.1	2119.9	2065.6	2018.4	2014.0	2022.7	2021.0	2021.9	2021.9
17.5°	2143.5	2136.5	2087.5	2033.2	2013.1	2005.2	1978.1	1944.0	1929.1	1923.9
20°	2154.9	2136.5	2077.0	2041.1	1997.4	1930.0	1858.3	1795.3	1767.3	1759.4
22.5°	2189.0	2157.5	2106.7	2044.6	1920.4	1807.5	1693.8	1618.5	1567.8	1559.1
25°	2258.1	2223.1	2165.4	1998.2	1797.9	1636.9	1507.4	1423.4	1372.7	1365.7
27.5°	2378.8	2356.1	2196.8	1895.9	1635.2	1462.8	1343.0	1278.2	1240.6	1238.0
30°	2560.8	2549.4	2181.1	1744.5	1434.8	1294.0	1236.2	1198.6	1170.6	1169.7
32.5°	2851.3	2759.4	2129.5	1559.9	1252.0	1174.1	1150.5	1127.7	1105.9	1105.9
35°	3224.8	2929.1	2031.5	1362.2	1140.9	1107.6	1077.9	1042.0	1013.1	1011.4
37.5°	3664.0	3034.1	1855.6	1203.0	1088.4	1063.0	1019.2	965.9	915.1	906.4
40°	4107.6	3065.6	1608.0	1105.0	1055.1	1018.4	965.0	902.0	853.0	850.4
42.5°	4514.4	3005.2	1345.6	1037.6	1021.9	972.9	916.9	860.9	822.4	821.5
45°	4855.6	2848.6	1125.1	973.8	986.9	931.8	881.9	836.4	806.6	800.5
47.5°	5176.7	2627.3	970.3	906.4	951.9	909.0	867.0	824.1	795.3	790.9
50°	5549.4	2388.4	861.8	840.8	921.3	901.1	879.3	834.6	786.5	781.3
52.5°	6000.9	2182.0	776.9	783.0	897.6	911.6	910.8	864.4	780.4	773.4
55°	6504.8	1952.8	713.0	735.8	888.0	930.9	918.6	892.4	785.7	775.2
57.5°	7000.9	1685.0	668.4	699.9	874.0	929.1	881.0	843.4	797.9	783.0
60°	7372.7	1325.5	634.3	668.4	843.4	900.3	839.9	790.0	795.3	783.9
62.5°	7397.2	1024.5	593.2	641.3	797.0	871.4	812.8	766.4	806.6	796.1
65°	6962.4	774.3	553.8	608.9	747.2	853.0	786.5	753.3	830.3	818.9
67.5°	5861.8	622.9	520.6	575.7	697.3	814.5	762.9	741.0	851.3	831.1
70°	4231.8	531.1	488.2	535.4	652.7	770.8	741.9	719.2	794.4	762.9
72.5°	2605.4	460.2	451.4	482.1	618.5	725.3	710.4	678.0	715.7	690.3
75°	1301.0	398.9	410.3	429.6	570.4	673.7	657.9	625.5	630.8	625.5
77.5°	622.9	341.2	362.2	377.1	508.3	615.0	598.4	565.2	559.1	559.9
80°	394.6	285.2	305.3	315.8	454.1	546.8	530.2	496.9	566.9	525.8
82.5°	246.7	231.8	237.1	256.3	395.5	475.9	454.1	424.3	510.9	404.2
85°	136.5	161.9	168.9	185.5	304.5	398.1	376.2	338.6	303.6	298.3
87.5°	81.4	96.2	98.9	111.1	204.7	287.8	254.6	241.5	200.3	199.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)