

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: P301092

Luminaire Tested: **GLNA-AF-03-LED-E1-T3R-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301092  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194839)  
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-T3R-7027  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(3) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
Roadway OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16086.4 lumens  
Efficiency: N/A  
Efficacy: 96.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short - Full Cutoff  
BUG Rating: B2 - 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

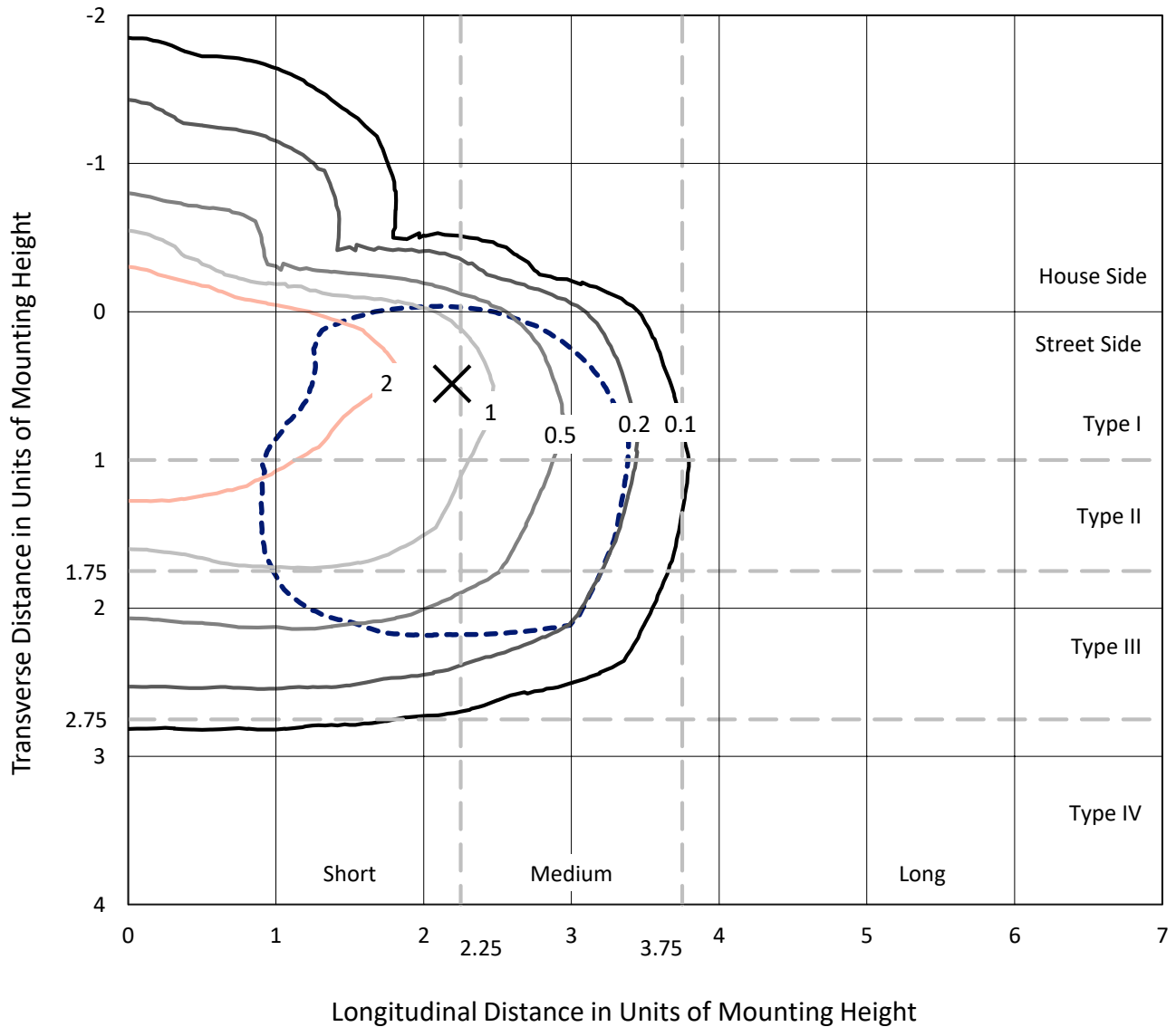


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### Iso-Footcandle Lines of Horizontal Illumination

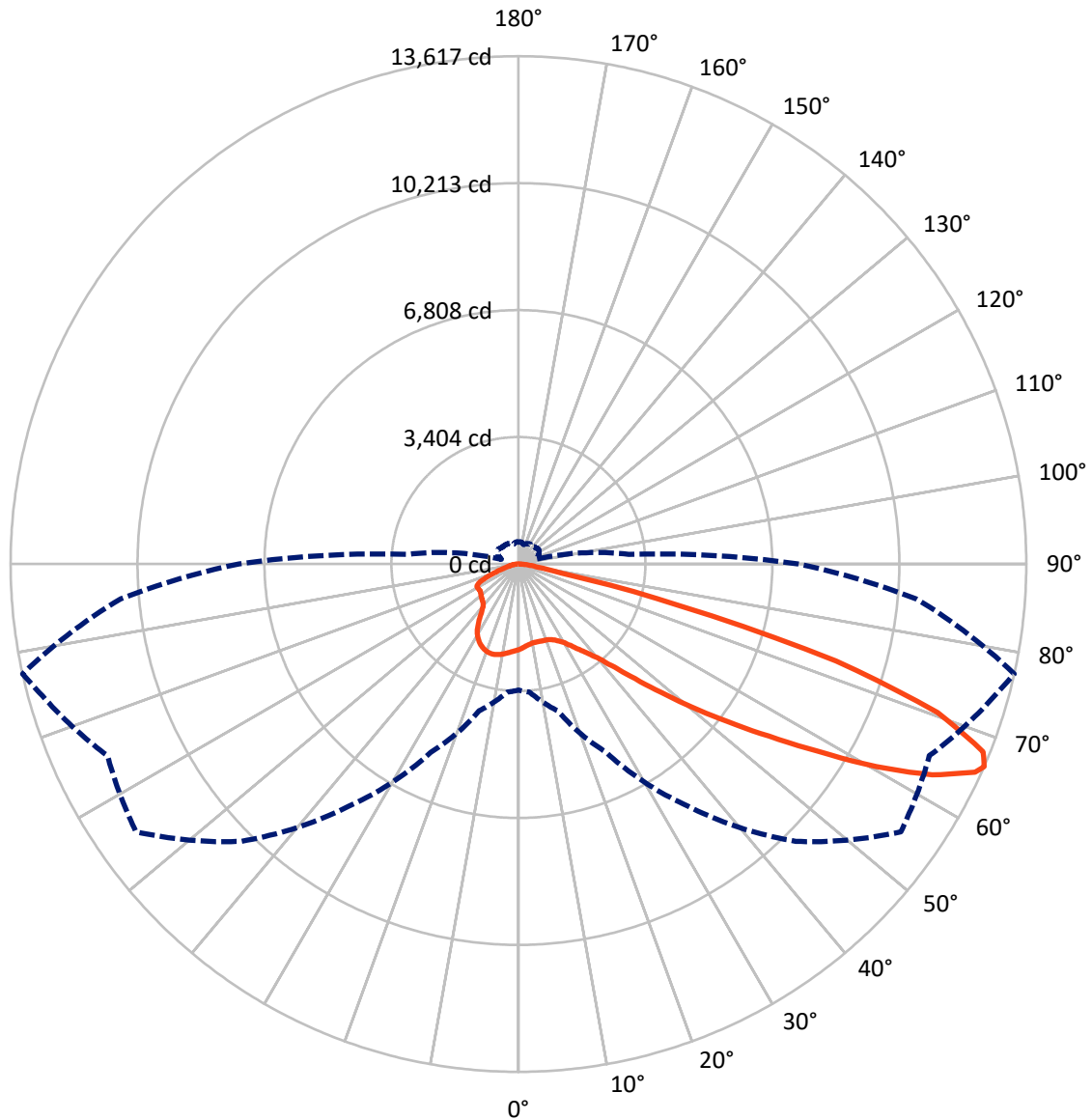
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.5 fc  
 Type III - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral    - - - Horizontal Cone Through 66-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2748.3	0.0	2748.3
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	13338.2	0.0	13338.2
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	16086.4	0.0	16086.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	204.8	1.3
10°-20°	577.8	3.6
20°-30°	986.1	6.1
30°-40°	1578.5	9.8
40°-50°	2438.7	15.2
50°-60°	3459.0	21.5
60°-70°	4627.1	28.8
70°-80°	2009.5	12.5
80°-90°	204.9	1.3
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°	16086.4	100.0
0°-180°	16086.4	100.0



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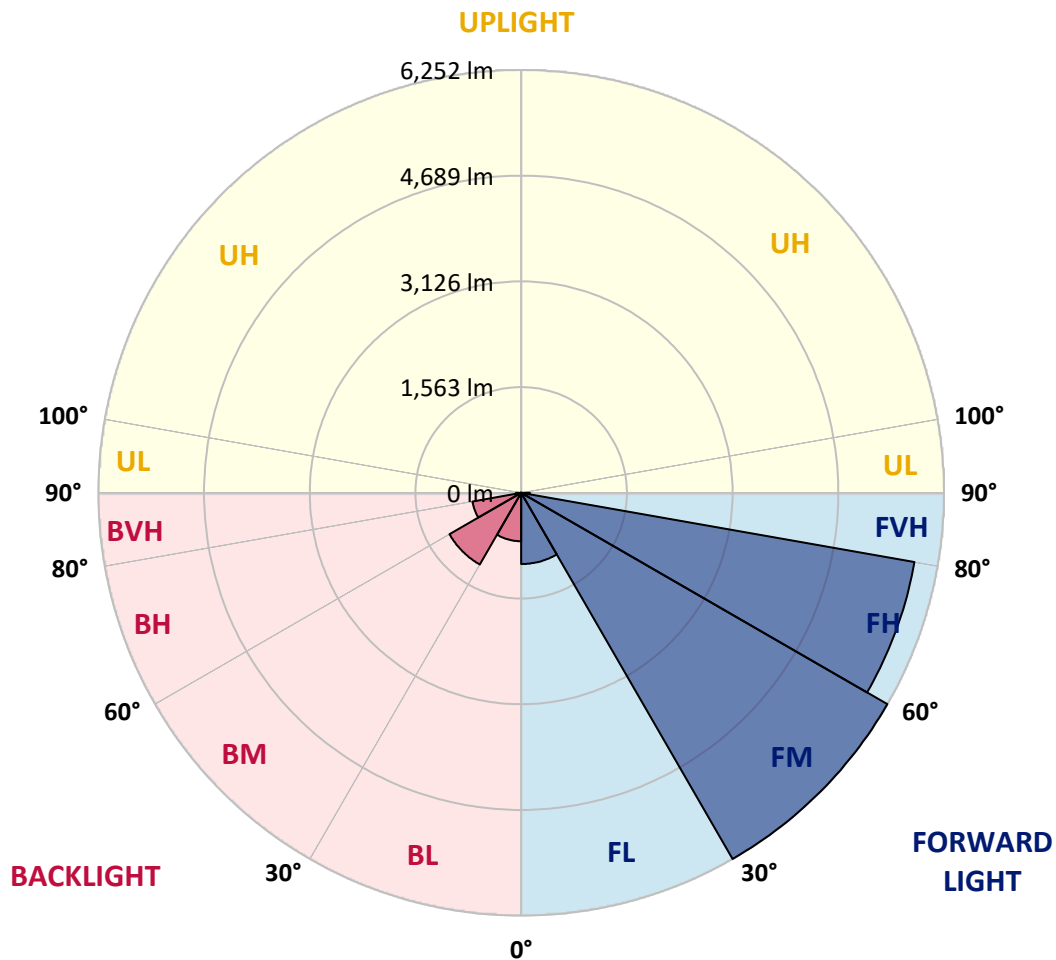
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1052.9	6.5			
FM	(30°-60°)	6252.0	38.9			
FH	(60°-80°)	5904.7	36.7			G3/7500
FVH	(80°-90°)	128.5	0.8			G2/225
BL	(0°-30°)	715.8	4.4	B2/1000		
BM	(30°-60°)	1224.2	7.6	B2/2500		
BH	(60°-80°)	731.9	4.5	B2/1000		G2/1000
BVH	(80°-90°)	76.4	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G3**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	2292.4	2292.4	2292.4	2292.4	2292.4	2292.4	2292.4	2292.4	2292.4	2292.4	2292.4
2.5°	2027.9	2041.5	2053.0	2063.6	2084.8	2119.8	2160.0	2192.7	2239.9	2249.1	2274.2
5°	1841.8	1841.8	1850.7	1866.9	1895.6	1948.1	2002.9	2075.8	2178.5	2202.6	2269.6
7.5°	1751.3	1752.0	1757.3	1770.9	1796.0	1843.8	1903.9	1990.0	2129.0	2169.2	2283.2
10°	1784.7	1777.1	1765.6	1758.9	1762.6	1790.7	1847.8	1943.5	2098.6	2150.1	2313.8
12.5°	1971.6	1957.3	1917.7	1865.2	1815.1	1794.6	1828.0	1921.4	2085.7	2145.8	2354.0
15°	2277.2	2271.2	2197.3	2088.7	1967.2	1865.2	1842.5	1913.1	2087.1	2151.1	2401.9
17.5°	2660.4	2651.8	2554.7	2396.6	2198.2	1999.9	1893.3	1920.0	2092.4	2160.0	2448.2
20°	3047.2	3021.2	2916.5	2728.0	2473.3	2182.8	1977.8	1937.5	2099.3	2169.9	2497.0
22.5°	3336.0	3314.6	3220.5	3037.3	2743.9	2395.0	2091.0	1967.9	2121.4	2198.9	2556.8
25°	3589.9	3591.3	3497.8	3320.8	3017.5	2620.1	2236.9	2049.1	2177.5	2258.1	2639.0
27.5°	3903.8	3885.6	3798.1	3622.5	3288.2	2847.2	2413.2	2161.0	2261.3	2342.5	2746.9
30°	4279.1	4266.2	4165.2	3966.1	3588.3	3091.2	2614.6	2290.8	2369.2	2453.5	2888.2
32.5°	4720.8	4714.8	4609.8	4353.7	3934.8	3378.6	2851.1	2462.7	2530.3	2617.8	3091.2
35°	5239.2	5239.9	5116.1	4808.2	4314.1	3713.0	3119.2	2683.8	2726.4	2817.5	3333.0
37.5°	5558.4	5597.1	5550.8	5236.9	4743.5	4087.0	3467.4	2977.3	2949.9	3041.9	3592.2
40°	5626.8	5674.0	5820.6	5661.1	5224.1	4498.9	3776.0	3259.2	3225.1	3337.4	3925.9
42.5°	5531.1	5596.4	5906.6	6018.9	5734.0	5006.6	4191.0	3678.0	3634.7	3785.9	4340.8
45°	5474.0	5522.8	5881.6	6205.4	6176.4	5580.5	4719.4	4203.9	4188.0	4386.4	4819.7
47.5°	5375.3	5419.4	5764.4	6248.6	6436.4	6106.4	5354.1	4847.1	4878.2	5138.2	5360.1
50°	5428.4	5446.6	5633.7	6138.4	6511.7	6491.9	6063.1	5591.8	5698.4	6022.9	5972.0
52.5°	5420.8	5468.0	5618.5	5957.5	6521.6	6729.8	6761.6	6422.6	6647.0	7019.3	6650.7
55°	4382.7	4469.2	5439.9	5911.9	6556.3	6963.0	7383.4	7298.3	7716.2	8150.2	7416.8
57.5°	4185.0	4239.8	4777.8	6007.7	6741.8	7408.5	8075.0	8262.1	8961.2	9465.2	8350.2
60°	4146.1	4213.8	4770.9	6124.8	7118.1	8134.3	9100.4	9428.8	10476.2	11028.1	9432.5
62.5°	4025.3	4098.2	4726.0	6109.4	7652.4	9138.4	10413.1	10669.3	11912.7	12449.4	10337.9
65°	3642.3	3710.7	4360.6	5864.1	8012.8	10210.2	11966.5	11806.4	13046.8	13450.2	10789.2
66°	3380.0	3447.0	4072.5	5575.2	7929.1	10514.2	12517.0	12158.2	13300.6	13616.8	10701.0
67.5°	2900.4	2952.9	3513.0	4928.3	7484.4	10599.3	12979.8	12422.7	13327.1	13438.9	10197.3
70°	1832.6	1847.8	2283.2	3402.1	5665.7	9192.3	12275.2	11766.1	12228.2	11925.6	8548.6
72.5°	795.1	789.8	1096.1	1730.6	3207.6	6168.1	9929.6	9708.5	9592.2	8902.1	5984.2
75°	442.3	448.5	569.4	803.4	1303.5	3029.7	6495.5	6215.9	5248.2	4478.4	2713.5
77.5°	354.9	363.4	472.0	570.0	585.2	1056.5	3039.6	2473.3	1489.0	1194.9	753.9
80°	280.5	295.7	411.9	443.9	394.5	435.4	982.0	785.2	589.1	540.4	390.8
82.5°	221.8	232.7	353.5	336.0	275.9	293.4	470.4	458.4	383.2	348.9	225.8
85°	159.7	179.3	290.4	253.1	180.9	197.7	312.3	299.4	219.5	179.3	99.6
87.5°	65.4	85.1	205.3	168.0	101.0	92.1	155.8	146.6	104.0	75.9	49.5
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°	2292.4	2292.4	2292.4	2292.4	2292.4	2292.4	2292.4	2292.4	2292.4	2292.4	2292.4
2.5°	2290.1	2308.3	2332.0	2346.5	2354.0	2359.3	2367.6	2366.9	2369.2	2369.9	2372.9
5°	2305.3	2335.6	2369.9	2379.1	2379.1	2370.6	2362.3	2348.5	2343.2	2341.8	2343.2
7.5°	2344.8	2378.2	2407.9	2397.3	2374.5	2340.9	2297.7	2259.7	2239.2	2232.3	2230.9
10°	2395.0	2435.3	2447.5	2407.2	2340.2	2259.7	2173.9	2111.5	2075.8	2065.9	2062.9
12.5°	2455.8	2493.7	2477.2	2392.0	2268.0	2138.2	2019.4	1920.0	1845.4	1822.0	1820.4
15°	2522.7	2552.4	2493.7	2344.8	2160.0	1968.6	1757.3	1585.6	1492.9	1463.2	1460.9
17.5°	2585.1	2600.3	2483.8	2262.7	2001.3	1691.3	1410.7	1278.4	1246.6	1254.2	1255.6
20°	2638.3	2638.3	2450.5	2144.9	1751.3	1325.6	1148.4	1146.3	1169.1	1191.9	1196.5
22.5°	2696.7	2661.7	2392.0	1978.5	1396.9	1084.6	1058.8	1080.0	1105.8	1130.9	1134.8
25°	2769.0	2680.8	2310.6	1726.2	1098.2	985.0	994.9	1012.4	1025.2	1041.4	1043.7
27.5°	2849.5	2705.0	2203.5	1378.7	953.2	922.8	930.4	936.4	934.8	941.0	942.4
30°	2946.0	2733.3	2056.7	1077.7	893.2	869.4	855.9	850.6	850.6	860.5	864.2
32.5°	3075.3	2775.0	1846.1	923.5	864.2	831.5	787.5	767.7	775.3	808.7	816.3
35°	3217.5	2819.8	1561.2	871.1	858.2	814.0	745.6	709.0	710.0	741.0	750.9
37.5°	3372.4	2876.9	1248.7	861.2	871.7	814.9	723.5	673.4	652.9	652.9	656.8
40°	3570.8	2935.4	1011.0	868.1	900.7	823.9	712.3	645.3	587.5	589.1	592.1
42.5°	3829.2	2985.5	883.3	882.3	935.7	836.1	711.3	608.0	557.8	592.1	623.2
45°	4116.6	3010.6	826.9	895.5	963.8	843.7	699.4	602.0	561.8	663.5	722.9
47.5°	4447.1	2996.1	795.8	899.8	970.7	843.7	685.6	616.5	588.2	768.4	837.7
50°	4809.8	2954.5	765.4	890.9	968.4	842.1	698.5	630.8	598.1	786.6	834.5
52.5°	5236.3	2919.5	733.4	871.1	952.3	833.8	713.6	624.8	567.1	715.3	748.6
55°	5722.5	2929.4	697.8	843.0	927.2	817.9	708.4	600.4	534.4	630.1	650.6
57.5°	6344.4	3047.2	655.2	807.3	893.2	791.2	689.5	589.1	524.5	571.7	583.9
60°	7038.2	3252.3	602.0	771.4	850.6	748.6	675.0	594.4	529.1	567.1	573.0
62.5°	7547.5	3371.7	556.5	718.9	792.8	701.5	656.8	601.1	541.3	582.9	581.6
65°	7685.8	3175.6	499.4	642.3	714.6	652.2	633.8	608.7	546.6	595.8	589.1
66°	7492.0	2964.4	474.3	606.6	675.0	627.8	622.5	608.0	544.3	597.4	585.9
67.5°	7021.6	2531.0	431.0	554.2	611.9	591.4	604.3	601.1	538.1	595.8	579.9
70°	5726.4	1726.9	368.7	461.4	509.3	520.6	569.4	576.9	518.3	569.4	534.4
72.5°	4001.1	1051.9	326.1	358.1	411.9	443.9	521.5	543.3	491.8	497.1	463.7
75°	1933.6	558.8	295.7	277.5	319.9	371.0	463.7	497.8	449.9	415.9	403.7
77.5°	602.7	341.3	250.8	223.5	250.8	299.4	387.5	436.3	400.7	348.2	343.6
80°	323.8	250.8	193.1	179.3	198.4	235.0	304.7	364.1	344.3	312.3	278.9
82.5°	213.6	162.7	142.9	139.0	151.2	179.3	226.5	301.7	301.7	267.6	194.7
85°	110.2	99.6	98.0	98.0	105.6	119.4	154.2	232.7	247.9	141.3	117.1
87.5°	54.8	57.1	53.2	55.5	59.4	58.5	73.6	117.1	139.9	85.8	71.3
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)