

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: P302937

Luminaire Tested: **GLNA-AF-10-LED-E1-T4W-7030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P302937
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P191569)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-10-LED-E1-T4W-7030-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 3000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 37153.5 lumens
Efficiency: N/A
Efficacy: 115.0 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G5

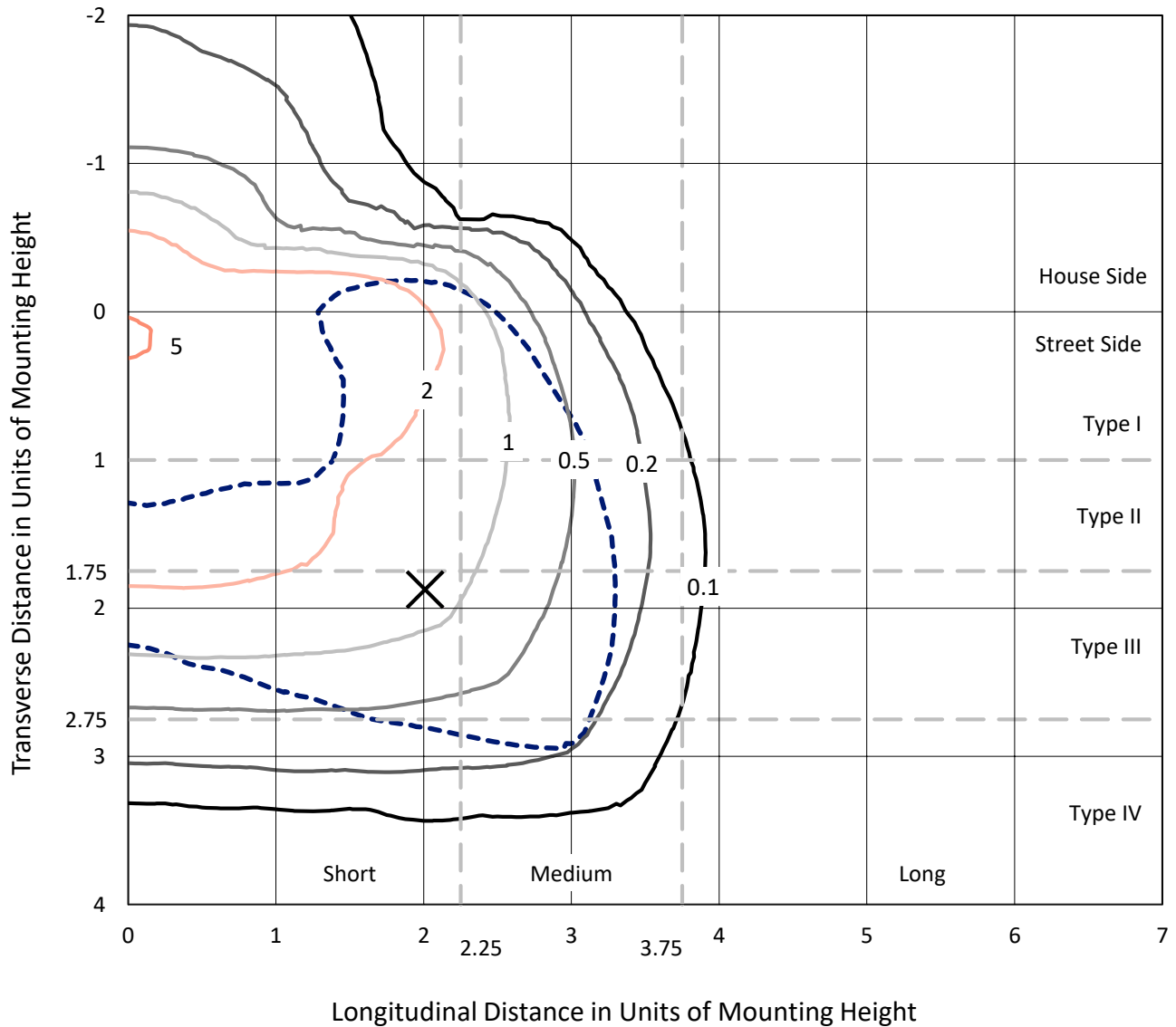
Input Watts (W): 323
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

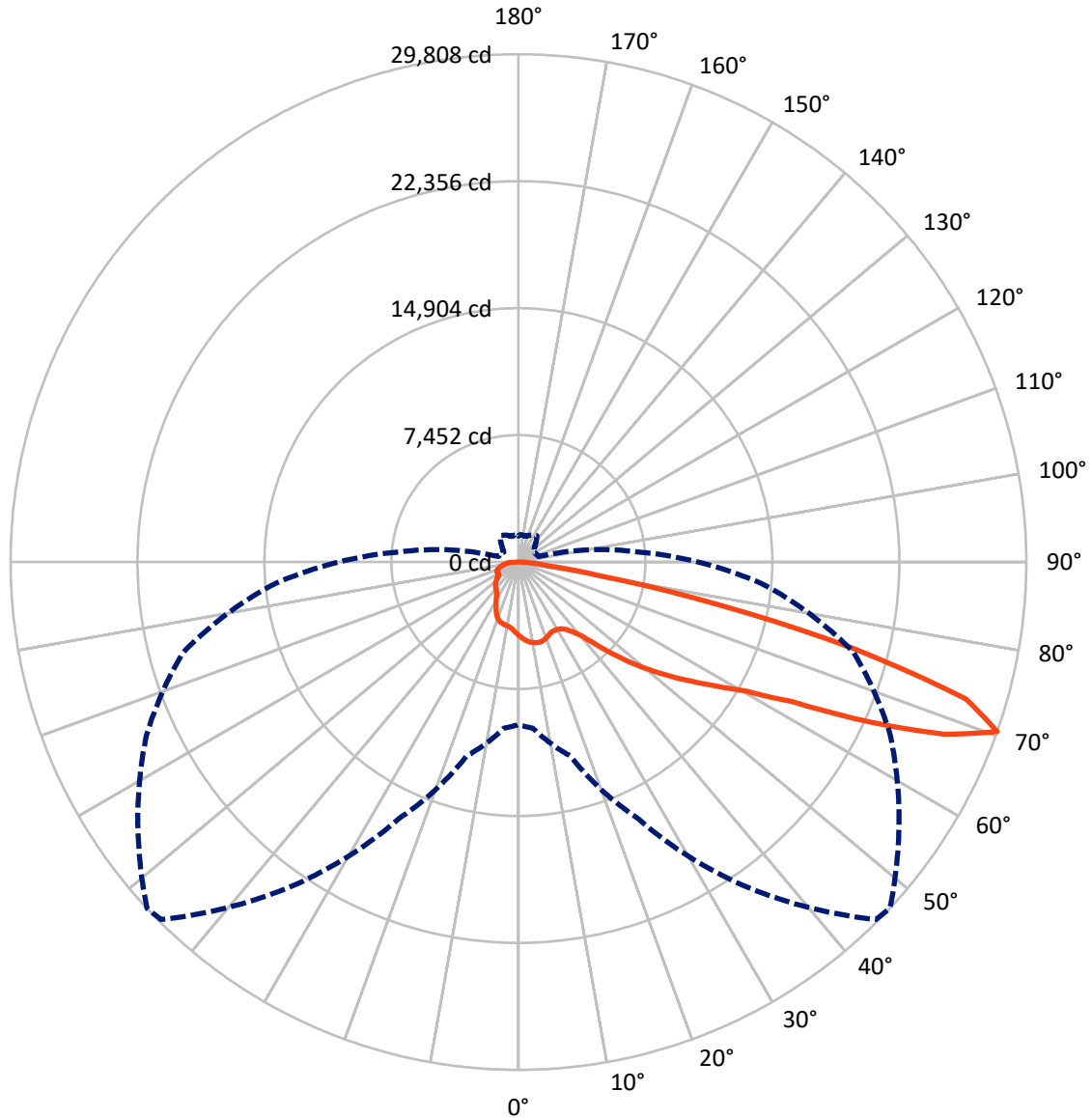
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.5 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7751.0	0.0	7751.0
	% Fixture	20.9	0.0	20.9
Street Side	Lumens	29402.5	0.0	29402.5
	% Fixture	79.1	0.0	79.1
Total	Lumens	37153.5	0.0	37153.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	413.1	1.1
10°-20°	1211.8	3.3
20°-30°	1789.5	4.8
30°-40°	2601.1	7.0
40°-50°	4681.0	12.6
50°-60°	8109.3	21.8
60°-70°	11574.3	31.2
70°-80°	5941.6	16.0
80°-90°	831.8	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°	37153.5	100.0
0°-180°	37153.5	100.0



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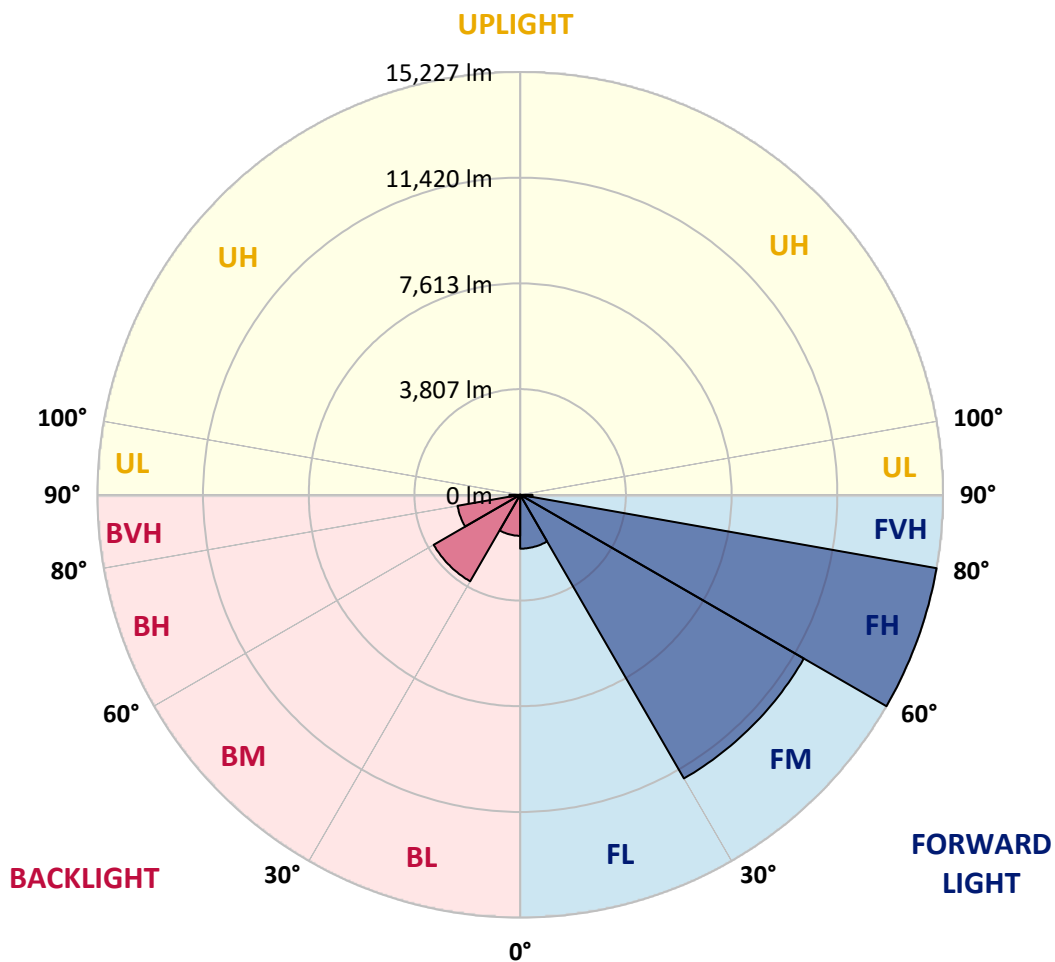
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1938.6	5.2			
FM	(30°-60°)	11793.6	31.7			
FH	(60°-80°)	15226.5	41.0			G5
FVH	(80°-90°)	443.9	1.2			G3/500
BL	(0°-30°)	1475.8	4.0	B3/2500		
BM	(30°-60°)	3597.8	9.7	B3/5000		
BH	(60°-80°)	2289.4	6.2	B3/2500		G3/2500
BVH	(80°-90°)	388.0	1.0			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	4310.9	4310.9	4310.9	4310.9	4310.9	4310.9	4310.9	4310.9	4310.9	4310.9	4310.9
2.5°	4564.2	4555.2	4551.6	4544.4	4535.4	4489.8	4480.8	4448.3	4403.3	4355.9	4307.3
5°	4864.4	4862.6	4842.1	4806.1	4748.5	4648.8	4625.4	4546.2	4439.3	4336.1	4233.4
7.5°	5127.9	5111.7	5073.9	5001.2	4900.4	4764.7	4732.3	4621.8	4475.4	4334.3	4195.0
10°	5321.2	5312.2	5229.3	5129.7	4997.6	4847.5	4809.7	4686.7	4525.8	4346.9	4173.4
12.5°	5431.7	5413.6	5317.6	5198.7	5041.5	4895.0	4856.6	4732.3	4551.6	4346.9	4142.8
15°	5424.5	5411.8	5315.8	5185.5	5027.0	4898.6	4864.4	4739.5	4546.2	4328.9	4103.2
17.5°	5279.8	5285.2	5204.1	5075.7	4945.4	4847.5	4816.9	4701.7	4509.6	4292.9	4056.3
20°	5027.0	5052.3	4997.6	4884.2	4811.5	4744.9	4725.1	4627.2	4453.7	4240.6	4005.3
22.5°	4773.7	4797.1	4775.5	4679.5	4668.7	4629.0	4618.2	4548.0	4405.1	4208.2	3974.7
25°	4587.6	4609.2	4605.6	4522.2	4555.2	4553.4	4544.4	4509.6	4394.3	4208.2	3980.1
27.5°	4537.2	4544.4	4537.2	4460.9	4506.0	4542.6	4535.4	4529.4	4426.7	4260.4	4049.1
30°	4710.7	4699.9	4643.4	4489.8	4531.8	4582.2	4575.0	4578.6	4524.0	4397.9	4202.8
32.5°	5402.8	5353.6	5176.5	4744.9	4634.4	4661.5	4665.1	4725.1	4734.1	4609.2	4441.1
35°	6438.4	6384.4	6154.4	5428.1	4954.4	4860.8	4860.8	4950.8	5004.8	4913.0	4811.5
37.5°	7535.8	7475.7	7353.3	6375.4	5626.8	5205.9	5196.9	5260.0	5337.4	5359.6	5384.8
40°	8782.6	8719.6	8753.8	7437.9	6565.1	5803.9	5675.4	5630.4	5839.9	5979.1	6182.1
42.5°	10147.7	10118.3	10130.9	8621.7	7633.0	6698.9	6516.4	6282.9	6536.2	6783.6	7208.6
45°	11410.8	11436.0	11423.4	9889.0	8822.8	7790.3	7597.0	7145.0	7392.9	7817.3	8510.1
47.5°	12517.2	12412.1	12574.8	11273.3	10154.9	9012.5	8773.6	8168.5	8419.4	8943.5	10114.7
50°	13860.1	13845.7	13607.4	13121.1	11765.0	10239.6	9926.8	9225.7	9615.9	10344.6	12137.8
52.5°	15272.0	15009.7	14791.2	14557.7	13473.5	11497.8	11114.2	10279.2	11022.4	11938.5	14603.3
55°	15560.8	15443.7	15714.5	16107.1	15120.1	12804.7	12358.1	11600.5	12606.0	13761.0	17446.4
57.5°	16179.1	16177.3	16738.0	17437.4	16815.4	14190.9	13740.6	13196.7	14386.0	15848.3	20464.8
60°	16596.9	16714.0	17755.5	19112.8	18480.1	15792.5	15378.3	15038.5	16410.8	18181.8	23277.2
62.5°	16815.4	16974.5	18395.5	19792.4	20833.4	18458.5	18044.9	17555.0	19089.4	20741.5	24922.1
65°	15906.6	16218.7	18295.8	20380.1	22894.2	22780.2	22594.1	21733.8	22438.6	22764.0	24327.8
67.5°	13390.0	13710.0	16128.7	19832.0	24365.6	26948.8	26988.4	25518.8	24499.5	22937.5	20454.0
70°	9540.2	9791.1	11792.6	16627.5	23244.8	29672.4	29808.1	27262.7	24088.9	20341.7	14290.5
72.5°	4529.4	4683.1	6577.7	10821.9	18445.9	27187.1	27449.4	25036.2	20482.8	15060.1	7795.7
75°	1664.7	1711.5	2223.0	4603.8	10698.8	20049.3	20358.5	17947.0	13577.9	7497.9	2969.8
77.5°	997.7	1028.3	1247.5	1943.2	4208.2	11460.0	11916.9	9760.5	5934.1	2790.9	1460.6
80°	697.6	719.2	894.5	1209.0	1988.2	4367.3	4773.7	3983.7	2364.0	1766.1	1062.6
82.5°	471.8	482.7	629.1	817.0	1321.3	1559.6	1682.7	1771.5	1594.4	1314.1	674.2
85°	309.2	320.0	426.8	538.5	840.4	806.2	824.2	1042.7	1164.0	892.7	374.0
87.5°	177.1	184.3	256.9	287.6	412.4	341.6	345.2	549.3	745.0	602.1	227.5
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°	4310.9	4310.9	4310.9	4310.9	4310.9	4310.9	4310.9	4310.9	4310.9	4310.9	4310.9
2.5°	4294.7	4271.2	4219.0	4186.0	4155.4	4148.2	4135.6	4133.8	4132.0	4132.0	4126.6
5°	4198.6	4159.0	4077.9	4032.3	3994.5	3990.9	3989.1	3998.1	4001.7	4005.3	3999.9
7.5°	4137.4	4083.3	3981.9	3917.1	3872.0	3860.6	3879.2	3920.7	3947.7	3958.5	3953.1
10°	4099.6	4032.3	3915.3	3844.4	3806.6	3801.2	3824.6	3873.8	3929.7	3951.3	3949.5
12.5°	4056.3	3980.1	3855.2	3781.4	3759.8	3770.6	3801.2	3846.2	3904.5	3938.7	3940.5
15°	4012.5	3924.3	3795.8	3731.0	3722.0	3736.4	3765.2	3799.4	3844.4	3879.2	3882.8
17.5°	3960.3	3867.8	3740.0	3672.7	3665.5	3672.7	3674.5	3692.5	3722.0	3754.4	3763.4
20°	3904.5	3810.2	3676.3	3609.7	3577.3	3548.5	3515.4	3519.1	3528.1	3561.1	3568.3
22.5°	3864.2	3770.6	3627.7	3535.3	3448.8	3361.8	3296.9	3287.9	3291.5	3318.5	3327.5
25°	3867.8	3768.8	3615.1	3456.0	3266.3	3127.0	3040.0	3025.6	3023.8	3043.6	3056.8
27.5°	3938.7	3839.0	3661.9	3374.4	3067.6	2861.1	2769.3	2758.5	2744.0	2749.4	2763.9
30°	4096.0	4003.5	3776.0	3291.5	2852.1	2601.2	2505.1	2494.3	2474.5	2465.5	2476.3
32.5°	4352.3	4276.6	3942.3	3211.7	2637.2	2378.5	2281.2	2257.8	2245.2	2234.4	2243.4
35°	4779.1	4746.7	4164.4	3125.2	2447.5	2206.8	2118.5	2082.5	2064.5	2084.3	2098.7
37.5°	5447.9	5465.9	4455.5	2989.6	2301.0	2093.3	2018.9	1977.4	1950.4	1966.6	1982.8
40°	6395.2	6407.8	4777.3	2798.1	2174.3	2026.1	1946.8	1909.0	1870.6	1841.8	1840.0
42.5°	7638.4	7510.5	5093.7	2590.4	2027.9	1984.6	1896.4	1849.0	1791.3	1711.5	1695.3
45°	9113.4	8663.8	5333.8	2351.4	1863.4	1934.2	1840.0	1775.1	1684.5	1598.0	1589.0
47.5°	10812.9	9901.6	5451.5	2104.1	1709.7	1859.8	1771.5	1668.3	1554.2	1511.0	1505.6
50°	12887.6	11371.2	5507.3	1863.4	1576.4	1762.5	1671.9	1550.6	1455.2	1446.2	1440.8
52.5°	15250.4	13139.1	5525.9	1666.5	1466.0	1635.9	1590.8	1473.2	1396.9	1404.7	1404.7
55°	17723.1	14964.7	5279.8	1523.6	1364.5	1505.6	1536.2	1442.6	1378.9	1408.3	1419.1
57.5°	19992.9	16582.5	4506.0	1413.7	1269.1	1406.5	1516.4	1471.4	1428.2	1545.2	1552.4
60°	21735.6	17538.2	3365.4	1314.1	1198.2	1371.7	1569.2	1581.8	1592.6	1872.4	1910.8
62.5°	22100.6	17220.7	2313.6	1236.7	1165.8	1401.1	1664.7	1666.5	1653.9	1849.0	1872.4
65°	20425.1	15208.4	1682.7	1192.8	1138.8	1453.4	1746.3	1707.9	1625.1	1773.3	1729.5
67.5°	16220.5	11458.2	1401.1	1160.4	1099.2	1449.8	1832.8	1746.3	1608.8	1737.3	1666.5
70°	10528.9	6928.2	1247.5	1133.4	1051.8	1380.7	1883.2	1742.7	1561.4	1616.0	1532.6
72.5°	5136.9	3098.2	1144.2	1093.8	1003.1	1285.3	1881.4	1709.7	1512.8	1509.2	1464.2
75°	2009.9	1419.1	1050.0	1033.7	920.3	1176.6	1831.0	1662.9	1455.2	1396.9	1380.7
77.5°	1176.6	1012.1	931.1	945.5	820.6	1068.0	1757.1	1581.8	1375.3	1306.9	1288.9
80°	856.7	757.6	793.6	817.0	701.2	959.9	1657.5	1482.2	1287.1	1321.3	1296.1
82.5°	549.3	488.1	643.5	667.0	584.1	849.4	1548.8	1377.1	1162.2	1055.4	1030.1
85°	280.3	309.2	479.1	507.9	450.2	697.6	1417.3	1238.5	1021.1	878.3	892.7
87.5°	157.3	211.3	305.6	341.6	318.2	536.7	1149.6	1021.1	833.2	677.8	596.7
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)