

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: P302940

Luminaire Tested: **GLNA-AF-10-LED-E1-T4W-7050-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P302940
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-7050-600
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 5000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 38410.3 lumens
Efficiency: N/A
Efficacy: 118.9 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

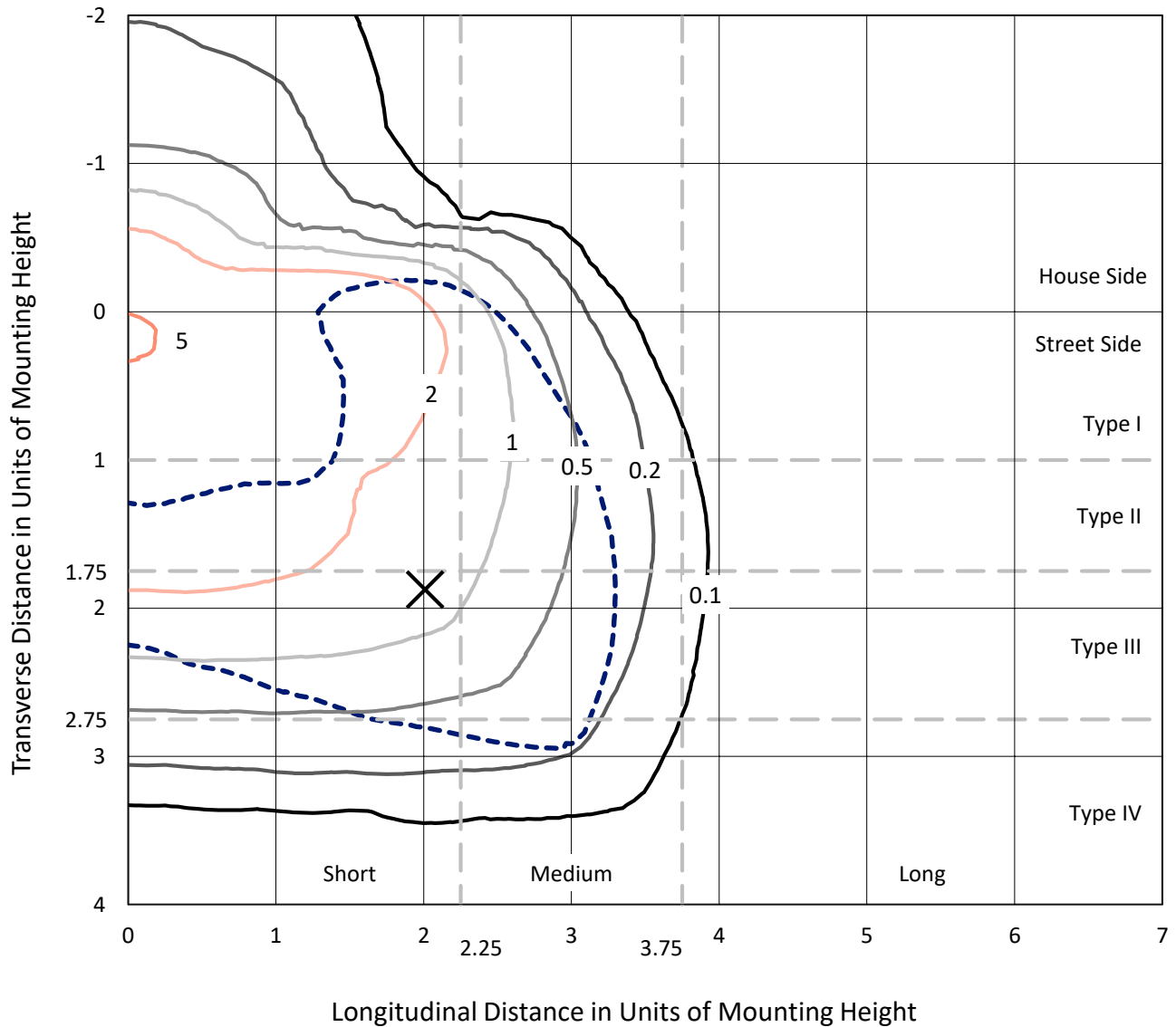
Input Watts (W): 323
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

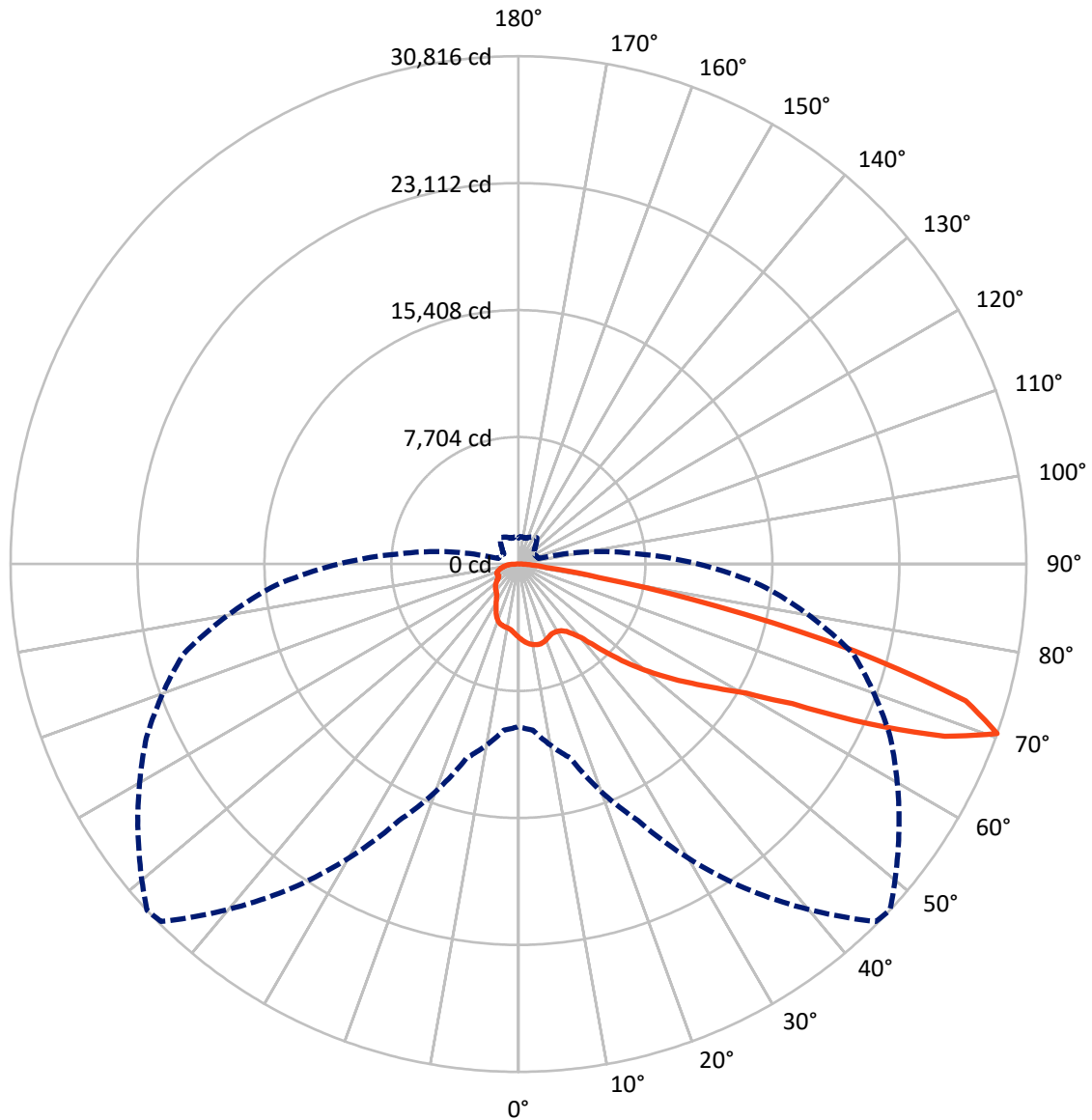
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.7 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	8013.2	0.0	8013.2
	% Fixture	20.9	0.0	20.9
Street Side	Lumens	30397.2	0.0	30397.2
	% Fixture	79.1	0.0	79.1
Total	Lumens	38410.3	0.0	38410.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	427.0	1.1
10°-20°	1252.8	3.3
20°-30°	1850.1	4.8
30°-40°	2689.0	7.0
40°-50°	4839.3	12.6
50°-60°	8383.6	21.8
60°-70°	11965.9	31.2
70°-80°	6142.6	16.0
80°-90°	860.0	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°	38410.3	100.0
0°-180°	38410.3	100.0



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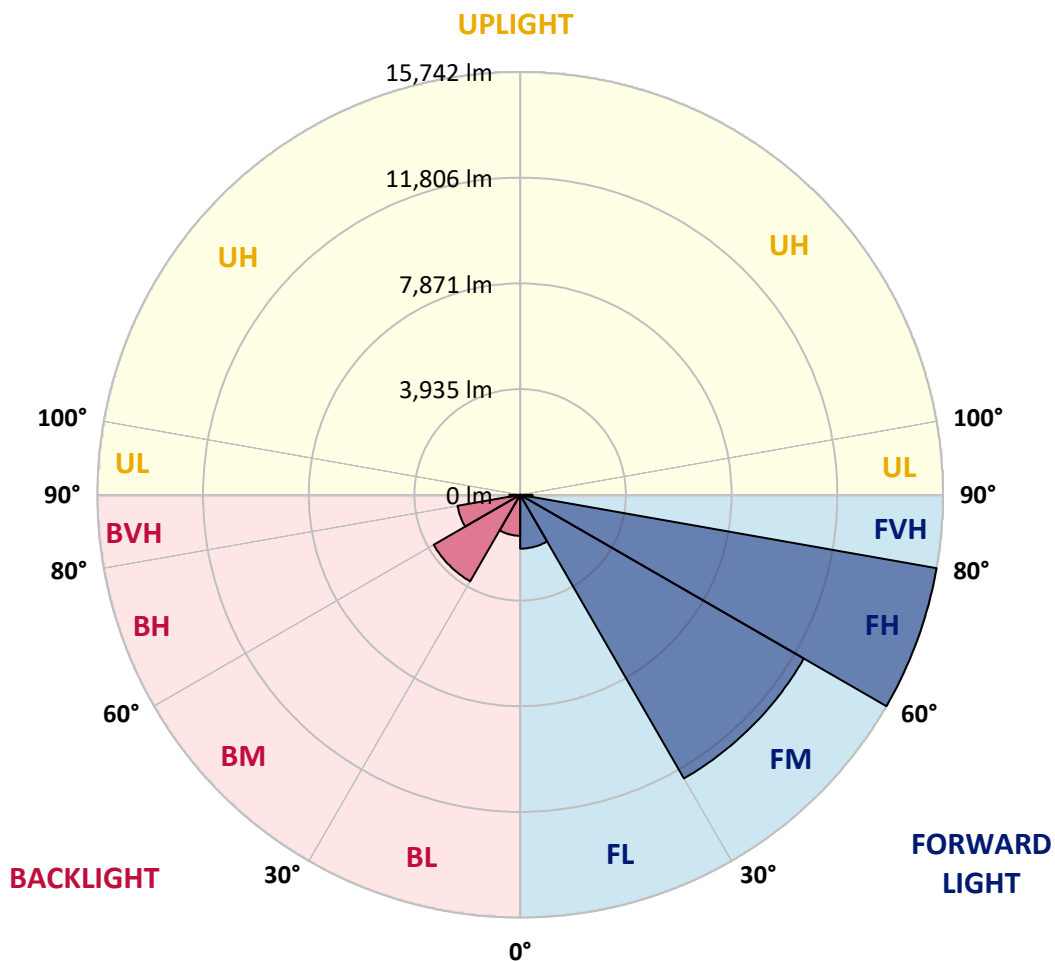
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2004.2	5.2			
FM	(30°-60°)	12192.5	31.7			
FH	(60°-80°)	15741.6	41.0			G5
FVH	(80°-90°)	458.9	1.2			G3/500
BL	(0°-30°)	1525.7	4.0	B3/2500		
BM	(30°-60°)	3719.5	9.7	B3/5000		
BH	(60°-80°)	2366.9	6.2	B3/2500		G3/2500
BVH	(80°-90°)	401.1	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°	4456.7	4456.7	4456.7	4456.7	4456.7	4456.7	4456.7	4456.7	4456.7	4456.7	4456.7
2.5°	4718.6	4709.3	4705.6	4698.1	4688.8	4641.6	4632.3	4598.8	4552.3	4503.2	4453.0
5°	5028.9	5027.0	5005.9	4968.7	4909.1	4806.1	4781.9	4700.0	4589.5	4482.8	4376.6
7.5°	5301.4	5284.6	5245.5	5170.4	5066.1	4925.9	4892.4	4778.2	4626.7	4480.9	4336.9
10°	5501.2	5491.9	5406.2	5303.2	5166.7	5011.5	4972.4	4845.2	4678.9	4493.9	4314.6
12.5°	5615.4	5596.8	5497.5	5374.6	5212.0	5060.6	5020.8	4892.4	4705.6	4493.9	4282.9
15°	5607.9	5594.9	5495.6	5360.9	5197.1	5064.3	5028.9	4899.8	4700.0	4475.3	4242.0
17.5°	5458.4	5464.0	5380.2	5247.4	5112.7	5011.5	4979.9	4860.7	4662.1	4438.1	4193.5
20°	5197.1	5223.2	5166.7	5049.4	4974.3	4905.4	4884.9	4783.8	4604.4	4384.1	4140.8
22.5°	4935.2	4959.4	4937.1	4837.8	4826.6	4785.6	4774.5	4701.8	4554.1	4350.6	4109.1
25°	4742.8	4765.1	4761.4	4675.2	4709.3	4707.4	4698.1	4662.1	4543.0	4350.6	4114.7
27.5°	4690.7	4698.1	4690.7	4611.8	4658.4	4696.3	4688.8	4682.6	4576.5	4404.6	4186.1
30°	4870.0	4858.9	4800.5	4641.6	4685.1	4737.2	4729.8	4733.5	4677.0	4546.7	4345.0
32.5°	5585.6	5534.7	5351.6	4905.4	4791.2	4819.1	4822.9	4884.9	4894.2	4765.1	4591.4
35°	6656.2	6600.3	6362.6	5611.7	5122.0	5025.2	5025.2	5118.3	5174.1	5079.2	4974.3
37.5°	7790.7	7728.6	7602.0	6591.0	5817.1	5382.0	5372.7	5437.9	5518.0	5540.9	5567.0
40°	9079.7	9014.5	9049.9	7689.5	6787.1	6000.2	5867.4	5820.8	6037.4	6181.4	6391.2
42.5°	10491.0	10460.6	10473.6	8913.4	7891.2	6925.5	6736.9	6495.4	6757.3	7013.0	7452.4
45°	11796.8	11822.9	11809.8	10223.5	9121.3	8053.8	7854.0	7386.7	7643.0	8081.8	8797.9
47.5°	12940.6	12832.0	13000.2	11654.7	10498.5	9317.4	9070.4	8444.8	8704.2	9246.0	10456.9
50°	14328.9	14314.0	14067.7	13565.0	12163.0	10586.0	10262.6	9537.7	9941.1	10694.6	12548.4
52.5°	15788.6	15517.4	15291.5	15050.1	13929.3	11886.8	11490.2	10626.9	11395.3	12342.3	15097.3
55°	16087.2	15966.1	16246.0	16651.9	15631.6	13237.9	12776.1	11992.9	13032.5	14226.5	18036.5
57.5°	16726.4	16724.5	17304.2	18027.2	17384.3	14670.9	14205.4	13643.2	14872.6	16384.4	21157.0
60°	17158.4	17279.4	18356.2	19759.4	19105.3	16326.7	15898.5	15547.2	16966.0	18796.8	24064.7
62.5°	17384.3	17548.7	19017.7	20461.9	21538.1	19082.9	18655.3	18148.9	19735.2	21443.1	25765.2
65°	16444.6	16767.4	18914.7	21069.5	23668.7	23550.8	23358.4	22469.0	23197.6	23534.0	25150.7
67.5°	13843.0	14173.8	16674.3	20502.9	25189.8	27860.4	27901.3	26382.1	25328.2	23713.4	21145.9
70°	9862.9	10122.4	12191.5	17190.0	24031.1	30676.1	30816.4	28185.0	24903.7	21029.8	14773.9
72.5°	4682.6	4841.5	6800.2	11188.0	19069.9	28106.8	28378.0	25883.1	21175.7	15569.6	8059.4
75°	1721.0	1769.4	2298.2	4759.6	11060.7	20727.6	21047.2	18554.1	14037.2	7751.6	3070.2
77.5°	1031.5	1063.1	1289.7	2009.0	4350.6	11847.7	12320.0	10090.7	6134.9	2885.3	1510.0
80°	721.2	743.5	924.7	1249.9	2055.5	4515.0	4935.2	4118.5	2444.0	1825.9	1098.5
82.5°	487.8	499.0	650.4	844.7	1366.0	1612.4	1739.6	1831.5	1648.4	1358.5	697.0
85°	319.6	330.8	441.3	556.7	868.9	833.5	852.1	1078.0	1203.4	922.9	386.6
87.5°	183.1	190.5	265.6	297.3	426.4	353.1	356.9	567.9	770.2	622.5	235.2
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°	4456.7	4456.7	4456.7	4456.7	4456.7	4456.7	4456.7	4456.7	4456.7	4456.7	4456.7
2.5°	4439.9	4415.7	4361.7	4327.6	4296.0	4288.5	4275.5	4273.6	4271.7	4271.7	4266.2
5°	4340.6	4299.7	4215.9	4168.7	4129.6	4125.9	4124.0	4133.3	4137.1	4140.8	4135.2
7.5°	4277.3	4221.5	4116.6	4049.6	4003.0	3991.2	4010.5	4053.3	4081.2	4092.4	4086.8
10°	4238.2	4168.7	4047.7	3974.5	3935.4	3929.8	3954.0	4004.9	4062.6	4084.9	4083.1
12.5°	4193.5	4114.7	3985.6	3909.3	3887.0	3898.1	3929.8	3976.3	4036.5	4071.9	4073.8
15°	4148.2	4057.0	3924.2	3857.2	3847.9	3862.8	3892.5	3927.9	3974.5	4010.5	4014.2
17.5°	4094.2	3998.7	3866.5	3797.0	3789.5	3797.0	3798.8	3817.5	3847.9	3881.4	3890.7
20°	4036.5	3939.1	3800.7	3731.8	3698.3	3668.5	3634.4	3638.1	3647.4	3681.5	3689.0
22.5°	3994.9	3898.1	3750.4	3654.8	3565.5	3475.5	3408.5	3399.2	3402.9	3430.8	3440.1
25°	3998.7	3896.3	3737.4	3572.9	3376.8	3232.8	3142.8	3127.9	3126.1	3146.6	3160.2
27.5°	4071.9	3968.9	3785.8	3488.5	3171.4	2957.9	2862.9	2851.8	2836.9	2842.5	2857.3
30°	4234.5	4138.9	3903.7	3402.9	2948.6	2689.2	2589.9	2578.7	2558.2	2548.9	2560.1
32.5°	4499.5	4421.3	4075.6	3320.3	2726.4	2458.9	2358.4	2334.2	2321.1	2310.0	2319.3
35°	4940.8	4907.3	4305.3	3231.0	2530.3	2281.4	2190.2	2152.9	2134.3	2154.8	2169.7
37.5°	5632.2	5650.8	4606.3	3090.7	2378.8	2164.1	2087.2	2044.3	2016.4	2033.2	2049.9
40°	6611.5	6624.5	4938.9	2892.7	2247.9	2094.6	2012.7	1973.6	1933.9	1904.1	1902.2
42.5°	7896.8	7764.6	5266.0	2678.0	2096.5	2051.8	1960.5	1911.5	1851.9	1769.4	1752.6
45°	9421.7	8956.8	5514.2	2431.0	1926.4	1999.6	1902.2	1835.2	1741.5	1652.1	1642.8
47.5°	11178.7	10236.6	5635.9	2175.3	1767.5	1922.7	1831.5	1724.7	1606.8	1562.1	1556.5
50°	13323.5	11755.8	5693.6	1926.4	1629.8	1822.1	1728.4	1603.1	1504.4	1495.1	1489.5
52.5°	15766.3	13583.6	5712.8	1722.8	1515.6	1691.2	1644.7	1523.0	1444.2	1452.3	1452.3
55°	18322.6	15470.9	5458.4	1575.1	1410.7	1556.5	1588.2	1491.4	1425.6	1456.0	1467.2
57.5°	20669.2	17143.5	4658.4	1461.6	1312.0	1454.1	1567.7	1521.1	1476.5	1597.5	1604.9
60°	22470.9	18131.5	3479.2	1358.5	1238.8	1418.1	1622.3	1635.3	1646.5	1935.7	1975.4
62.5°	22848.2	17803.2	2391.9	1278.5	1205.2	1448.5	1721.0	1722.8	1709.8	1911.5	1935.7
65°	21116.1	15722.9	1739.6	1233.2	1177.3	1502.5	1805.4	1765.7	1680.0	1833.3	1788.0
67.5°	16769.2	11845.8	1448.5	1199.7	1136.4	1498.8	1894.8	1805.4	1663.3	1796.1	1722.8
70°	10885.1	7162.6	1289.7	1171.7	1087.3	1427.4	1946.9	1801.7	1614.2	1670.7	1584.5
72.5°	5310.7	3203.0	1182.9	1130.8	1037.1	1328.8	1945.0	1767.5	1564.0	1560.2	1513.7
75°	2077.8	1467.2	1085.5	1068.7	951.4	1216.4	1892.9	1719.1	1504.4	1444.2	1427.4
77.5°	1216.4	1046.4	962.6	977.5	848.4	1104.1	1816.6	1635.3	1421.8	1351.1	1332.5
80°	885.6	783.2	820.5	844.7	724.9	992.4	1713.5	1532.3	1330.6	1366.0	1339.9
82.5°	567.9	504.6	665.3	689.5	603.9	878.2	1601.2	1423.7	1201.5	1091.1	1065.0
85°	289.8	319.6	495.3	525.0	465.5	721.2	1465.3	1280.3	1055.7	908.0	922.9
87.5°	162.6	218.5	315.9	353.1	328.9	554.8	1188.5	1055.7	861.4	700.7	616.9
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)