

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: P301182

Luminaire Tested: **GLNA-AF-08-LED-E1-T3R-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301182
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-08-LED-E1-T3R-7027-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 34116 lumens
Efficiency: N/A
Efficacy: 102.1 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B3 - U0 - G5

Input Watts (W): 334
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

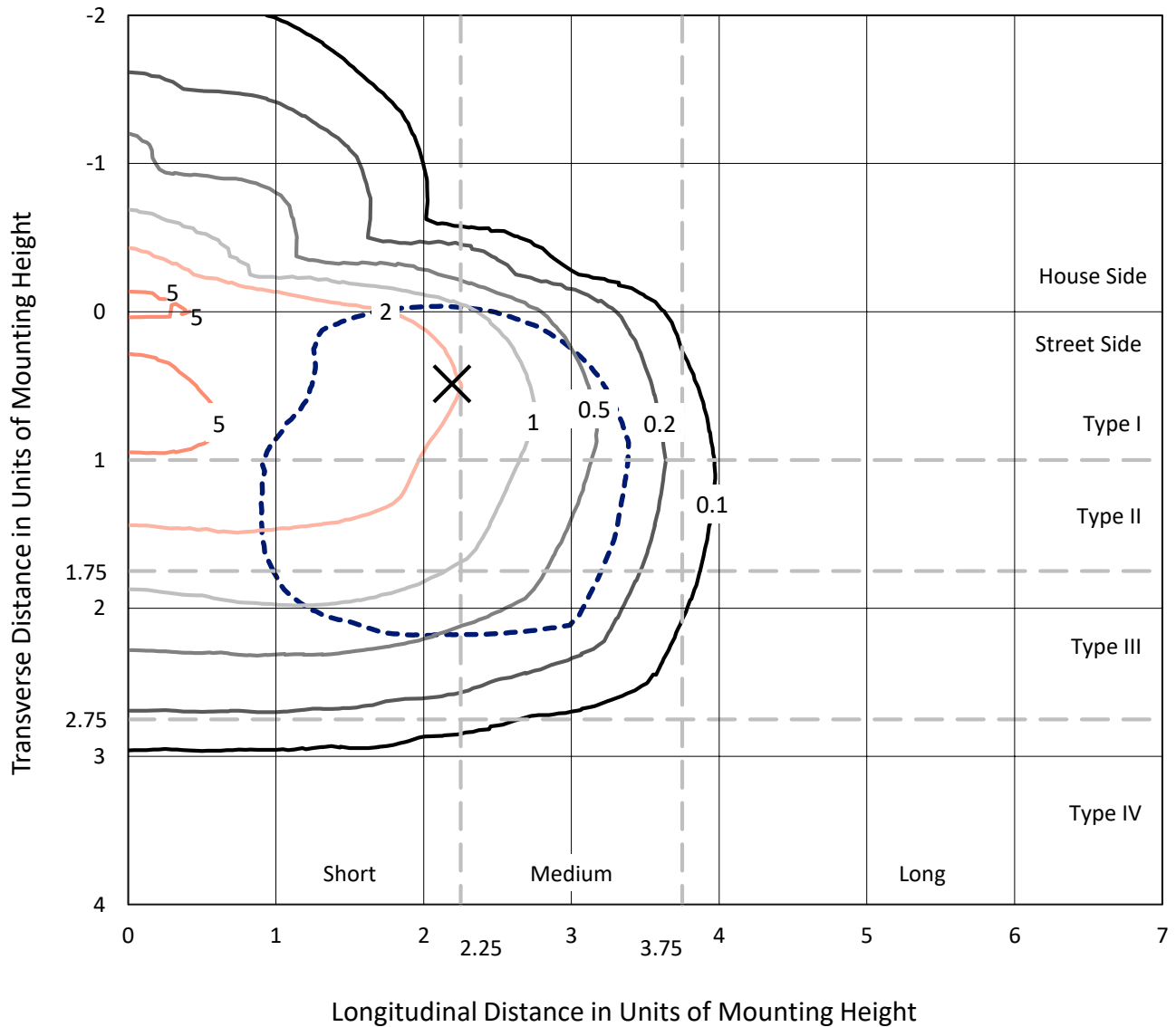


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Iso-Footcandle Lines of Horizontal Illumination

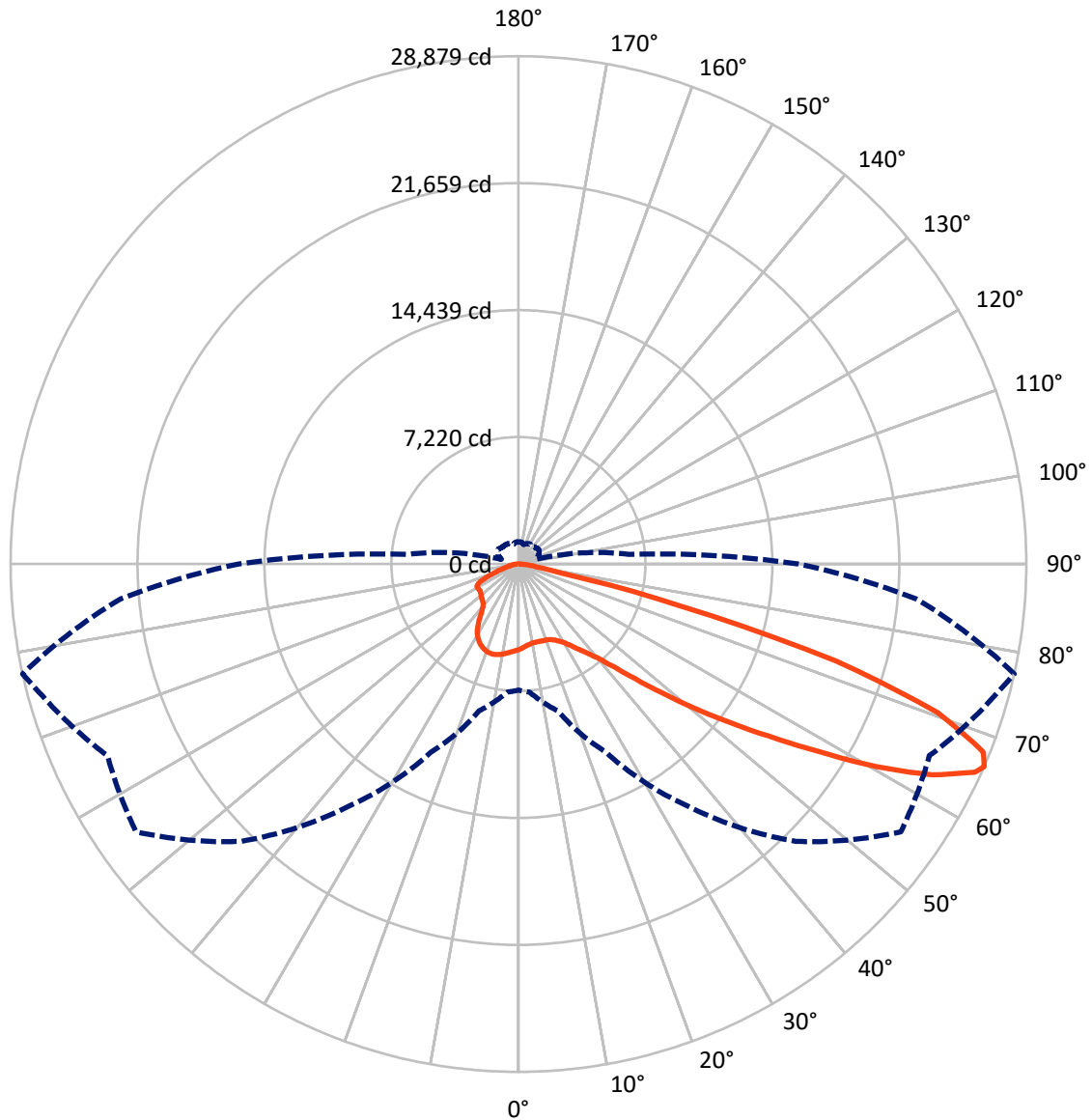
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.7 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
House Side	Lumens	5828.5	0.0	5828.5
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	28287.5	0.0	28287.5
	% Fixture	82.9	0.0	82.9
Total	Lumens	34116.0	0.0	34116.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	434.4	1.3
10°-20°	1225.4	3.6
20°-30°	2091.3	6.1
30°-40°	3347.8	9.8
40°-50°	5172.0	15.2
50°-60°	7335.7	21.5
60°-70°	9813.2	28.8
70°-80°	4261.7	12.5
80°-90°	434.6	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°	34116.0	100.0
0°-180°	34116.0	100.0



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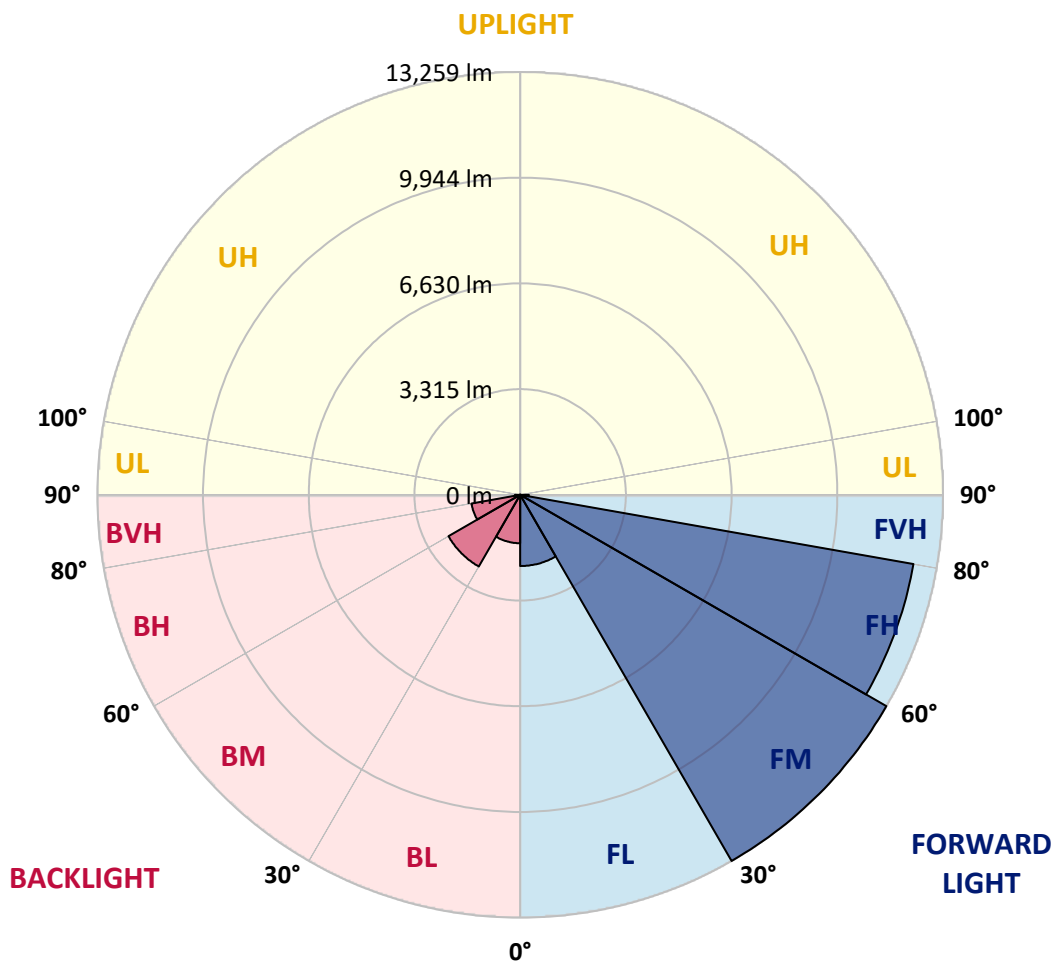
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2233.1	6.5			
FM	(30°-60°)	13259.3	38.9			
FH	(60°-80°)	12522.7	36.7			G5
FVH	(80°-90°)	272.5	0.8			G3/500
BL	(0°-30°)	1518.0	4.4	B3/2500		
BM	(30°-60°)	2596.3	7.6	B3/5000		
BH	(60°-80°)	1552.3	4.5	B3/2500		G3/2500
BVH	(80°-90°)	162.0	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	4861.6	4861.6	4861.6	4861.6	4861.6	4861.6	4861.6	4861.6	4861.6	4861.6	4861.6
2.5°	4300.9	4329.7	4354.1	4376.5	4421.4	4495.6	4581.0	4650.3	4750.4	4769.9	4823.1
5°	3906.0	3906.0	3925.0	3959.2	4020.2	4131.5	4247.7	4402.4	4620.1	4671.3	4813.3
7.5°	3714.2	3715.7	3726.9	3755.7	3808.9	3910.4	4037.8	4220.3	4515.1	4600.5	4842.1
10°	3785.0	3768.9	3744.5	3730.3	3738.1	3797.7	3918.7	4121.7	4450.7	4560.0	4907.0
12.5°	4181.3	4151.0	4067.1	3955.8	3849.4	3806.0	3876.7	4074.9	4423.4	4550.7	4992.5
15°	4829.4	4816.7	4660.1	4429.7	4172.0	3955.8	3907.5	4057.3	4426.3	4562.0	5094.0
17.5°	5642.1	5624.0	5418.0	5082.7	4662.0	4241.3	4015.3	4072.0	4437.5	4581.0	5192.1
20°	6462.5	6407.4	6185.3	5785.6	5245.3	4629.3	4194.5	4109.0	4452.2	4602.0	5295.5
22.5°	7075.0	7029.6	6830.0	6441.5	5819.2	5079.3	4434.6	4173.5	4499.0	4663.5	5422.4
25°	7613.4	7616.3	7418.2	7042.8	6399.6	5556.7	4744.0	4345.8	4618.1	4788.9	5596.7
27.5°	8279.1	8240.5	8055.1	7682.7	6973.5	6038.4	5117.9	4583.0	4795.8	4968.0	5825.6
30°	9075.1	9047.8	8833.5	8411.4	7610.0	6555.7	5544.9	4858.2	5024.7	5203.3	6125.3
32.5°	10011.7	9999.1	9776.5	9233.3	8345.0	7165.3	6046.7	5222.8	5366.3	5551.8	6555.7
35°	11111.4	11112.8	10850.2	10197.2	9149.3	7874.5	6615.3	5691.9	5782.1	5975.4	7068.7
37.5°	11788.3	11870.3	11772.2	11106.5	10060.1	8667.6	7353.7	6314.1	6256.1	6451.3	7618.3
40°	11933.3	12033.3	12344.2	12006.0	11079.2	9541.2	8008.2	6912.0	6839.8	7078.0	8326.0
42.5°	11730.2	11868.8	12526.8	12764.9	12160.7	10617.9	8888.2	7800.3	7708.6	8029.2	9205.9
45°	11609.2	11712.7	12473.6	13160.3	13098.8	11835.2	10008.8	8915.5	8881.9	9302.6	10221.6
47.5°	11399.8	11493.5	12225.1	13252.0	13650.3	12950.4	11354.9	10279.7	10345.6	10897.1	11367.6
50°	11512.6	11551.1	11947.9	13018.2	13809.9	13767.9	12858.6	11859.1	12085.1	12773.2	12665.4
52.5°	11496.5	11596.5	11915.7	12634.6	13830.9	14272.6	14339.9	13621.0	14096.9	14886.6	14104.7
55°	9294.8	9478.3	11537.0	12538.0	13904.6	14767.0	15658.7	15478.1	16364.4	17284.9	15729.5
57.5°	8875.5	8991.7	10132.8	12741.0	14298.0	15711.9	17125.3	17522.1	19004.9	20073.8	17709.1
60°	8793.0	8936.5	10118.1	12989.5	15096.0	17251.3	19300.2	19996.7	22217.8	23388.2	20004.5
62.5°	8536.8	8691.5	10023.0	12956.8	16229.3	19380.7	22084.1	22627.3	25264.4	26402.5	21924.5
65°	7724.7	7869.6	9247.9	12436.5	16993.6	21653.6	25378.6	25038.9	27669.6	28525.2	22881.6
66°	7168.3	7310.3	8636.9	11823.9	16815.9	22298.4	26546.0	25785.1	28207.9	28878.5	22694.7
67.5°	6151.1	6262.4	7450.4	10452.0	15873.0	22479.0	27527.5	26345.9	28264.0	28501.2	21626.3
70°	3886.5	3918.7	4842.1	7215.1	12015.8	19494.9	26033.1	24953.5	25933.5	25291.7	18129.8
72.5°	1686.3	1675.1	2324.7	3670.3	6802.7	13081.2	21058.7	20589.7	20343.2	18879.5	12691.2
75°	938.1	951.2	1207.5	1703.8	2764.4	6425.4	13775.7	13182.7	11130.4	9497.8	5754.8
77.5°	752.6	770.7	1001.0	1208.9	1241.2	2240.7	6446.4	5245.3	3157.8	2534.1	1598.9
80°	595.0	627.2	873.6	941.5	836.5	923.4	2082.6	1665.3	1249.5	1146.0	828.7
82.5°	470.5	493.4	749.7	712.6	585.2	622.3	997.6	972.2	812.6	739.9	478.8
85°	338.7	380.2	615.9	536.9	383.6	419.3	662.3	635.0	465.6	380.2	211.3
87.5°	138.6	180.6	435.4	356.3	214.3	195.2	330.4	310.9	220.6	161.1	104.9
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°	4861.6	4861.6	4861.6	4861.6	4861.6	4861.6	4861.6	4861.6	4861.6	4861.6	4861.6
2.5°	4856.8	4895.3	4945.6	4976.3	4992.5	5003.7	5021.2	5019.8	5024.7	5026.1	5032.5
5°	4889.0	4953.4	5026.1	5045.7	5045.7	5027.6	5010.0	4980.7	4969.5	4966.6	4969.5
7.5°	4972.9	5043.7	5106.7	5084.2	5035.9	4964.6	4872.9	4792.3	4748.9	4734.3	4731.3
10°	5079.3	5164.7	5190.6	5105.2	4963.2	4792.3	4610.3	4478.0	4402.4	4381.4	4375.0
12.5°	5208.2	5288.7	5253.6	5073.0	4809.9	4534.6	4282.8	4072.0	3913.8	3864.0	3860.6
15°	5350.2	5413.2	5288.7	4972.9	4581.0	4174.9	3726.9	3362.8	3166.1	3103.1	3098.3
17.5°	5482.5	5514.7	5267.7	4798.7	4244.2	3586.8	2991.9	2711.2	2643.9	2660.0	2662.9
20°	5595.2	5595.2	5197.0	4548.8	3714.2	2811.3	2435.5	2431.1	2479.4	2527.7	2537.5
22.5°	5719.2	5645.0	5073.0	4195.9	2962.6	2300.3	2245.6	2290.5	2345.2	2398.4	2406.7
25°	5872.4	5685.5	4900.2	3661.0	2329.1	2088.9	2109.9	2147.0	2174.3	2208.5	2213.4
27.5°	6043.3	5736.8	4673.3	2924.0	2021.6	1957.2	1973.3	1986.0	1982.5	1995.7	1998.6
30°	6247.8	5796.8	4361.9	2285.6	1894.2	1843.9	1815.1	1803.9	1803.9	1824.9	1832.7
32.5°	6522.1	5885.1	3915.3	1958.6	1832.7	1763.4	1670.2	1628.2	1644.3	1715.1	1731.2
35°	6823.7	5980.3	3311.1	1847.3	1820.0	1726.3	1581.3	1503.7	1505.7	1571.6	1592.6
37.5°	7152.2	6101.3	2648.3	1826.4	1848.8	1728.3	1534.5	1428.1	1384.7	1384.7	1392.9
40°	7572.9	6225.3	2144.1	1841.0	1910.3	1747.3	1510.6	1368.5	1246.0	1249.5	1255.8
42.5°	8121.0	6331.7	1873.2	1871.3	1984.5	1773.2	1508.6	1289.5	1183.1	1255.8	1321.7
45°	8730.6	6384.9	1753.6	1899.1	2044.0	1789.3	1483.2	1276.8	1191.4	1407.1	1533.0
47.5°	9431.4	6354.2	1687.7	1908.3	2058.7	1789.3	1454.0	1307.5	1247.5	1629.7	1776.6
50°	10200.6	6265.8	1623.3	1889.3	2053.8	1785.8	1481.3	1337.8	1268.5	1668.2	1769.7
52.5°	11105.0	6191.6	1555.5	1847.3	2019.6	1768.3	1513.5	1325.1	1202.6	1516.9	1587.7
55°	12136.3	6212.6	1479.8	1787.8	1966.4	1734.6	1502.3	1273.4	1133.3	1336.3	1379.8
57.5°	13455.1	6462.5	1389.5	1712.1	1894.2	1678.0	1462.3	1249.5	1112.3	1212.4	1238.2
60°	14926.6	6897.4	1276.8	1636.0	1803.9	1587.7	1431.5	1260.7	1122.1	1202.6	1215.3
62.5°	16006.7	7150.7	1180.1	1524.7	1681.4	1487.6	1392.9	1274.8	1147.9	1236.3	1233.3
65°	16300.0	6734.9	1059.1	1362.2	1515.5	1383.2	1344.1	1290.9	1159.2	1263.6	1249.5
66°	15889.1	6286.8	1005.9	1286.5	1431.5	1331.5	1320.2	1289.5	1154.3	1267.0	1242.6
67.5°	14891.5	5367.8	914.2	1175.3	1297.8	1254.3	1281.7	1274.8	1141.1	1263.6	1229.9
70°	12144.6	3662.5	781.9	978.6	1080.1	1104.0	1207.5	1223.6	1099.1	1207.5	1133.3
72.5°	8485.6	2231.0	691.6	759.4	873.6	941.5	1106.0	1152.3	1043.0	1054.2	983.5
75°	4100.8	1185.0	627.2	588.6	678.4	786.8	983.5	1055.7	954.2	881.9	856.1
77.5°	1278.3	723.8	532.0	473.9	532.0	635.0	821.9	925.4	849.7	738.4	728.7
80°	686.7	532.0	409.5	380.2	420.7	498.3	646.2	772.1	730.2	662.3	591.5
82.5°	452.9	345.1	303.1	294.8	320.7	380.2	480.3	639.9	639.9	567.6	412.9
85°	233.8	211.3	207.9	207.9	224.0	253.3	327.0	493.4	525.6	299.7	248.4
87.5°	116.2	121.0	112.7	117.6	125.9	124.0	156.2	248.4	296.7	182.0	151.3
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)