

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: P302870

Luminaire Tested: **GLNA-AF-09-LED-E1-T4W-7027-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P302870  
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-09-LED-E1-T4W-7027-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
Wide OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 36965.3 lumens  
Efficiency: N/A  
Efficacy: 98.8 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): 374  
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

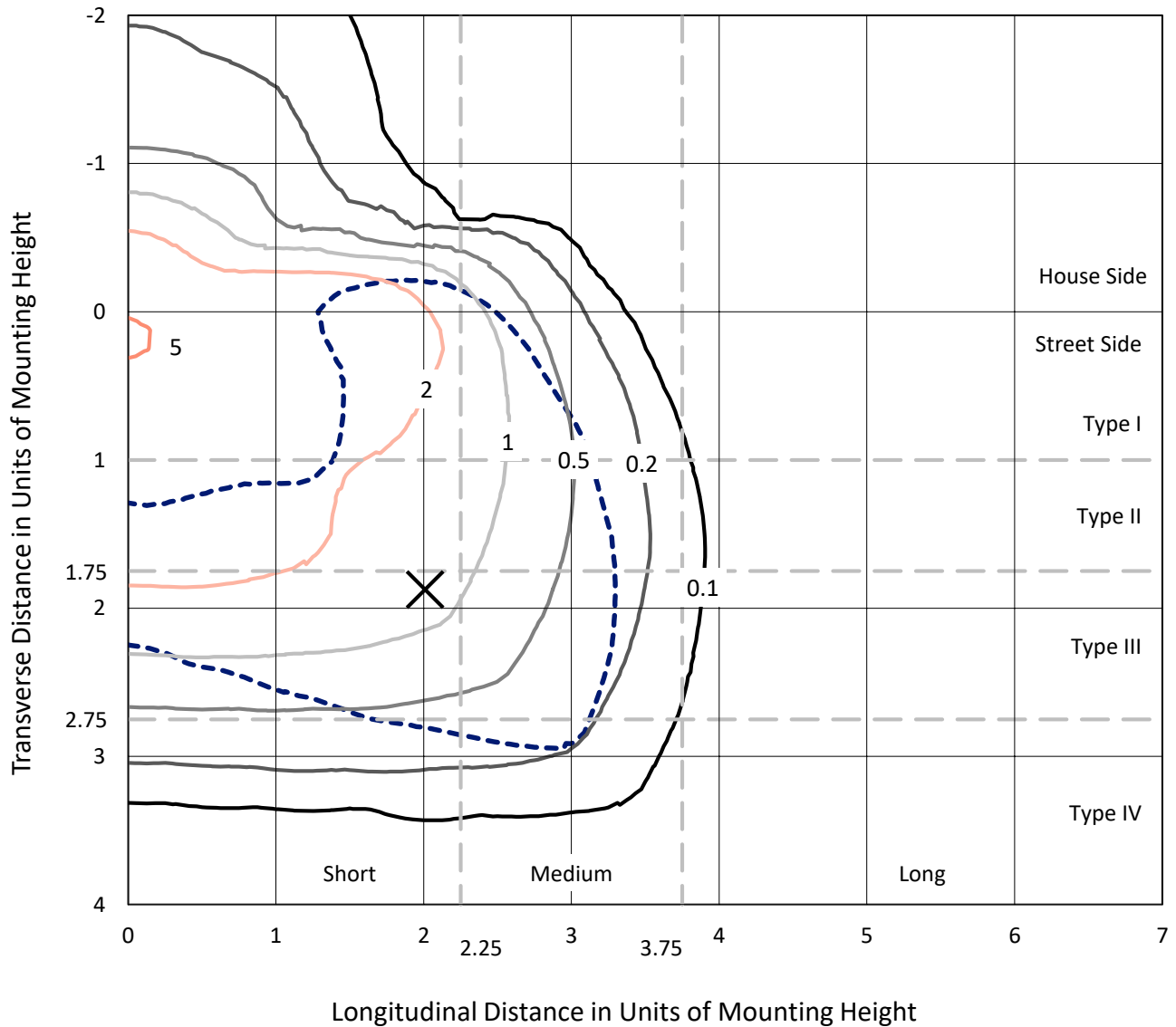


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### Iso-Footcandle Lines of Horizontal Illumination

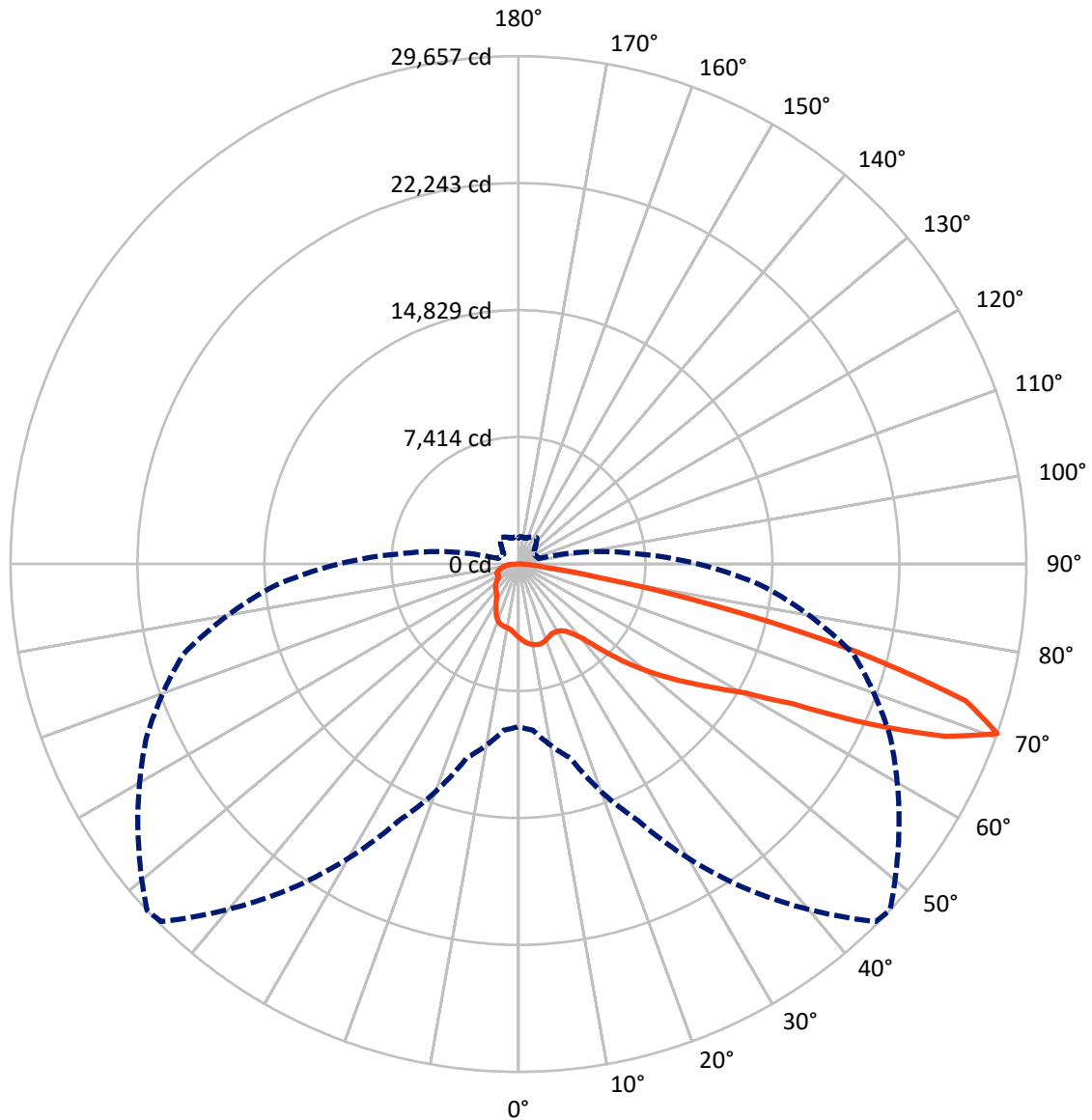
✕ Max cd  
 - - - 1/2 Max cd



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
<b>House Side</b>	Lumens	7711.7	0.0	7711.7
	% Fixture	20.9	0.0	20.9
<b>Street Side</b>	Lumens	29253.6	0.0	29253.6
	% Fixture	79.1	0.0	79.1
<b>Total</b>	Lumens	36965.3	0.0	36965.3
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	411.0	1.1
10°-20°	1205.7	3.3
20°-30°	1780.5	4.8
30°-40°	2587.9	7.0
40°-50°	4657.2	12.6
50°-60°	8068.2	21.8
60°-70°	11515.7	31.2
70°-80°	5911.5	16.0
80°-90°	827.6	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°	36965.3	100.0
0°-180°	36965.3	100.0

**Coefficient of Utilization**



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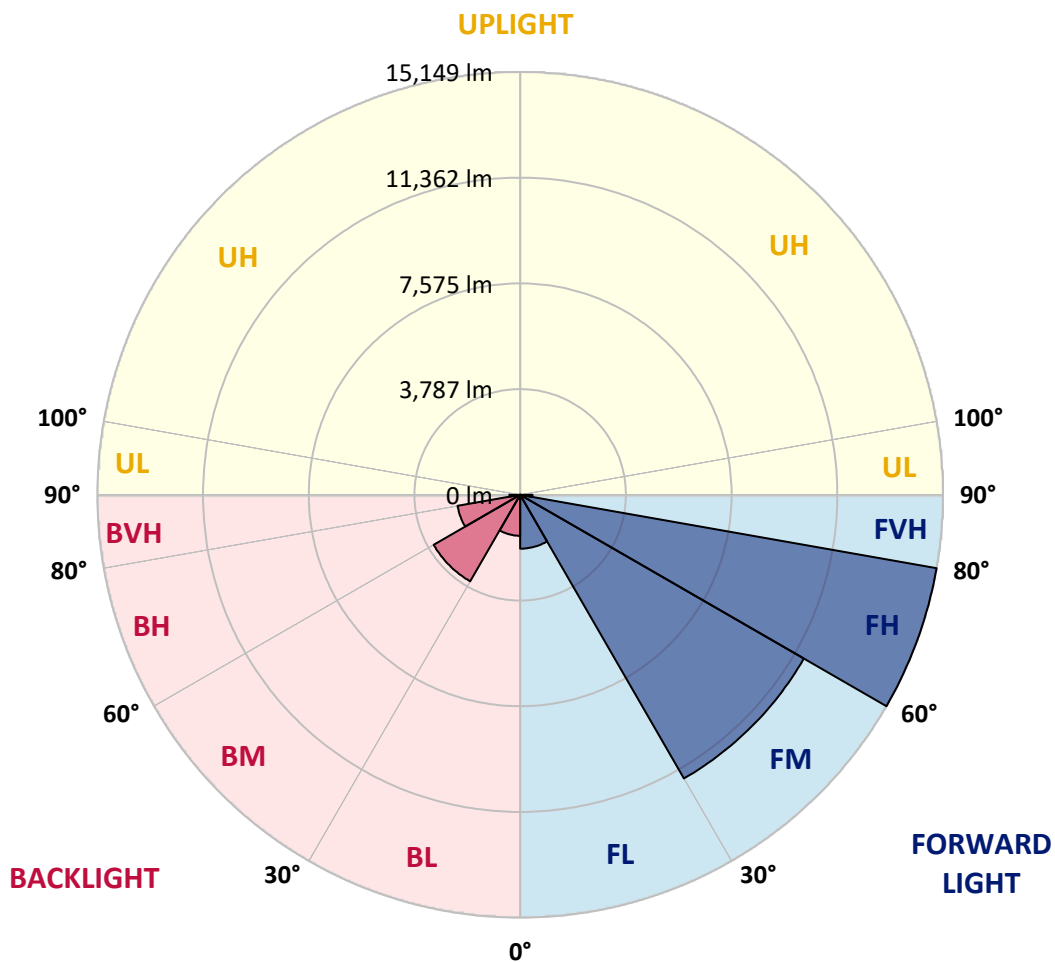
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1928.8	5.2			
FM	(30°-60°)	11733.8	31.7			
FH	(60°-80°)	15149.4	41.0			G5
FVH	(80°-90°)	441.6	1.2			G3/500
BL	(0°-30°)	1468.3	4.0	B3/2500		
BM	(30°-60°)	3579.5	9.7	B3/5000		
BH	(60°-80°)	2277.8	6.2	B3/2500		G3/2500
BVH	(80°-90°)	386.0	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°	4289.0	4289.0	4289.0	4289.0	4289.0	4289.0	4289.0	4289.0	4289.0	4289.0	4289.0
2.5°	4541.1	4532.1	4528.5	4521.4	4512.4	4467.0	4458.1	4425.8	4381.0	4333.8	4285.4
5°	4839.7	4837.9	4817.6	4781.8	4724.4	4625.3	4602.0	4523.2	4416.8	4314.1	4212.0
7.5°	5101.9	5085.8	5048.2	4975.9	4875.6	4740.6	4708.3	4598.4	4452.7	4312.3	4173.8
10°	5294.2	5285.3	5202.9	5103.7	4972.3	4823.0	4785.4	4662.9	4502.9	4324.9	4152.3
12.5°	5404.1	5386.2	5290.7	5172.4	5015.9	4870.2	4832.0	4708.3	4528.5	4324.9	4121.8
15°	5397.0	5384.4	5288.9	5159.3	5001.6	4873.8	4839.7	4715.5	4523.2	4306.9	4082.4
17.5°	5253.0	5258.4	5177.8	5050.0	4920.3	4823.0	4792.5	4677.9	4486.7	4271.1	4035.8
20°	5001.6	5026.7	4972.3	4859.4	4787.2	4720.9	4701.1	4603.8	4431.2	4219.1	3985.0
22.5°	4749.5	4772.8	4751.3	4655.8	4645.0	4605.6	4594.8	4525.0	4382.8	4186.9	3954.6
25°	4564.4	4585.9	4582.3	4499.3	4532.1	4530.3	4521.4	4486.7	4372.1	4186.9	3959.9
27.5°	4514.2	4521.4	4514.2	4438.3	4483.1	4519.6	4512.4	4506.4	4404.3	4238.9	4028.6
30°	4686.8	4676.1	4619.9	4467.0	4508.8	4559.0	4551.8	4555.4	4501.1	4375.6	4181.5
32.5°	5375.5	5326.5	5150.3	4720.9	4611.0	4637.8	4641.4	4701.1	4710.1	4585.9	4418.6
35°	6405.8	6352.0	6123.3	5400.6	4929.3	4836.1	4836.1	4925.7	4979.5	4888.1	4787.2
37.5°	7497.6	7437.9	7316.0	6343.1	5598.3	5179.6	5170.6	5233.3	5310.4	5332.5	5357.6
40°	8738.1	8675.4	8709.5	7400.2	6531.8	5774.5	5646.6	5601.8	5810.3	5948.9	6150.7
42.5°	10096.3	10067.1	10079.6	8578.1	7594.3	6665.0	6483.4	6251.1	6503.1	6749.2	7172.1
45°	11353.0	11378.1	11365.5	9838.9	8778.1	7750.8	7558.5	7108.8	7355.4	7777.7	8467.0
47.5°	12453.8	12349.3	12511.1	11216.2	10103.5	8966.9	8729.2	8127.1	8376.8	8898.2	10063.5
50°	13789.9	13775.5	13538.4	13054.6	11705.4	10187.7	9876.5	9178.9	9567.1	10292.2	12076.3
52.5°	15194.7	14933.7	14716.3	14483.9	13405.2	11439.6	11057.9	10227.1	10966.6	11878.0	14529.3
55°	15482.0	15365.5	15634.9	16025.5	15043.6	12739.9	12295.5	11541.7	12542.2	13691.3	17358.0
57.5°	16097.2	16095.4	16653.2	17349.0	16730.3	14119.0	13671.0	13129.9	14313.1	15768.1	20361.1
60°	16512.9	16629.3	17665.6	19016.0	18386.5	15712.5	15300.4	14962.3	16327.7	18089.7	23159.3
62.5°	16730.3	16888.5	18302.3	19692.1	20727.8	18365.0	17953.5	17466.1	18992.7	20636.4	24795.9
65°	15826.0	16136.6	18203.1	20276.9	22778.3	22664.8	22479.6	21623.7	22324.9	22648.7	24204.6
67.5°	13322.2	13640.6	16047.0	19731.6	24242.2	26812.3	26851.7	25389.6	24375.4	22821.3	20350.3
70°	9491.9	9741.6	11732.9	16543.3	23127.1	29522.1	29657.1	27124.6	23966.8	20238.7	14218.1
72.5°	4506.4	4659.3	6544.3	10767.1	18352.5	27049.4	27310.4	24909.3	20379.0	14983.8	7756.2
75°	1656.2	1702.8	2211.7	4580.5	10644.6	19947.8	20255.4	17856.1	13509.2	7460.0	2954.7
77.5°	992.7	1023.1	1241.1	1933.4	4186.9	11402.0	11856.5	9711.1	5904.1	2776.7	1453.2
80°	694.0	715.5	889.9	1202.9	1978.2	4345.2	4749.5	3963.5	2352.1	1757.2	1057.2
82.5°	469.5	480.2	625.9	812.9	1314.6	1551.7	1674.2	1762.6	1586.4	1307.4	670.7
85°	307.6	318.3	424.7	535.8	836.2	802.1	820.1	1037.5	1158.1	888.1	372.1
87.5°	176.2	183.4	255.6	286.1	410.3	339.8	343.4	546.5	741.2	599.1	226.4
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°	4289.0	4289.0	4289.0	4289.0	4289.0	4289.0	4289.0	4289.0	4289.0	4289.0	4289.0
2.5°	4272.9	4249.6	4197.6	4164.8	4134.3	4127.2	4114.6	4112.8	4111.0	4111.0	4105.7
5°	4177.3	4137.9	4057.3	4011.9	3974.3	3970.7	3968.9	3977.8	3981.4	3985.0	3979.6
7.5°	4116.4	4062.7	3961.7	3897.2	3852.4	3841.1	3859.6	3900.8	3927.7	3938.4	3933.1
10°	4078.8	4011.9	3895.4	3824.9	3787.3	3781.9	3805.2	3854.2	3909.8	3931.3	3929.5
12.5°	4035.8	3959.9	3835.7	3762.2	3740.7	3751.5	3781.9	3826.7	3884.7	3918.7	3920.5
15°	3992.2	3904.4	3776.6	3712.1	3703.1	3717.4	3746.1	3780.2	3824.9	3859.6	3863.2
17.5°	3940.2	3848.2	3721.0	3654.1	3647.0	3654.1	3655.9	3673.8	3703.1	3735.4	3744.3
20°	3884.7	3790.9	3657.7	3591.4	3559.2	3530.5	3497.6	3501.2	3510.2	3543.0	3550.2
22.5°	3844.7	3751.5	3609.3	3517.4	3431.3	3344.7	3280.2	3271.3	3274.9	3301.7	3310.7
25°	3848.2	3749.7	3596.8	3438.5	3249.8	3111.2	3024.6	3010.3	3008.5	3028.2	3041.3
27.5°	3918.7	3819.6	3643.4	3357.3	3052.1	2846.6	2755.2	2744.5	2730.1	2735.5	2749.9
30°	4075.2	3983.2	3756.9	3274.9	2837.7	2588.0	2492.4	2481.7	2462.0	2453.0	2463.8
32.5°	4330.2	4255.0	3922.3	3195.4	2623.8	2366.4	2269.6	2246.4	2233.8	2223.1	2232.0
35°	4754.9	4722.7	4143.3	3109.4	2435.1	2195.6	2107.8	2071.9	2054.0	2073.7	2088.1
37.5°	5420.3	5438.2	4433.0	2974.4	2289.4	2082.7	2008.6	1967.4	1940.5	1956.7	1972.8
40°	6362.8	6375.3	4753.1	2783.9	2163.3	2015.8	1937.0	1899.3	1861.1	1832.4	1830.6
42.5°	7599.7	7472.5	5067.9	2577.2	2017.6	1974.6	1886.8	1839.6	1782.3	1702.8	1686.7
45°	9067.2	8619.9	5306.8	2339.5	1853.9	1924.4	1830.6	1766.1	1676.0	1589.9	1581.0
47.5°	10758.1	9851.4	5423.9	2093.4	1701.0	1850.4	1762.6	1659.8	1546.3	1503.3	1498.0
50°	12822.3	11313.6	5479.4	1853.9	1568.4	1753.6	1663.4	1542.8	1447.8	1438.8	1433.5
52.5°	15173.2	13072.6	5497.9	1658.0	1458.5	1627.6	1582.8	1465.7	1389.9	1397.6	1397.6
55°	17633.3	14888.9	5253.0	1515.9	1357.6	1498.0	1528.4	1435.3	1371.9	1401.2	1412.0
57.5°	19891.6	16498.5	4483.1	1406.6	1262.6	1399.4	1508.7	1463.9	1420.9	1537.4	1544.6
60°	21625.5	17449.4	3348.3	1307.4	1192.2	1364.8	1561.3	1573.8	1584.6	1862.9	1901.1
62.5°	21988.7	17133.4	2301.9	1230.4	1159.9	1394.0	1656.2	1658.0	1645.5	1839.6	1862.9
65°	20321.7	15131.4	1674.2	1186.8	1133.0	1446.0	1737.5	1699.2	1616.8	1764.3	1720.7
67.5°	16138.4	11400.2	1394.0	1154.5	1093.6	1442.4	1823.5	1737.5	1600.7	1728.5	1658.0
70°	10475.6	6893.1	1241.1	1127.7	1046.4	1373.7	1873.7	1733.9	1553.5	1607.9	1524.8
72.5°	5110.9	3082.5	1138.4	1088.2	998.0	1278.8	1871.9	1701.0	1505.1	1501.5	1456.8
75°	1999.7	1412.0	1044.6	1028.5	915.6	1170.7	1821.7	1654.5	1447.8	1389.9	1373.7
77.5°	1170.7	1007.0	926.4	940.7	816.5	1062.6	1748.2	1573.8	1368.4	1300.3	1282.3
80°	852.3	753.8	789.6	812.9	697.6	955.0	1649.1	1474.7	1280.6	1314.6	1289.5
82.5°	546.5	485.6	640.3	663.6	581.1	845.1	1541.0	1370.1	1156.3	1050.0	1024.9
85°	278.9	307.6	476.6	505.3	448.0	694.0	1410.2	1232.2	1016.0	873.8	888.1
87.5°	156.5	210.2	304.0	339.8	316.6	534.0	1143.8	1016.0	829.0	674.3	593.7
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)