

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: P299272

Luminaire Tested: **GLNA-AF-10-LED-E1-T3-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299272
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24140)
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-T3-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 38686.9 lumens
Efficiency: N/A
Efficacy: 119.8 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Full 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

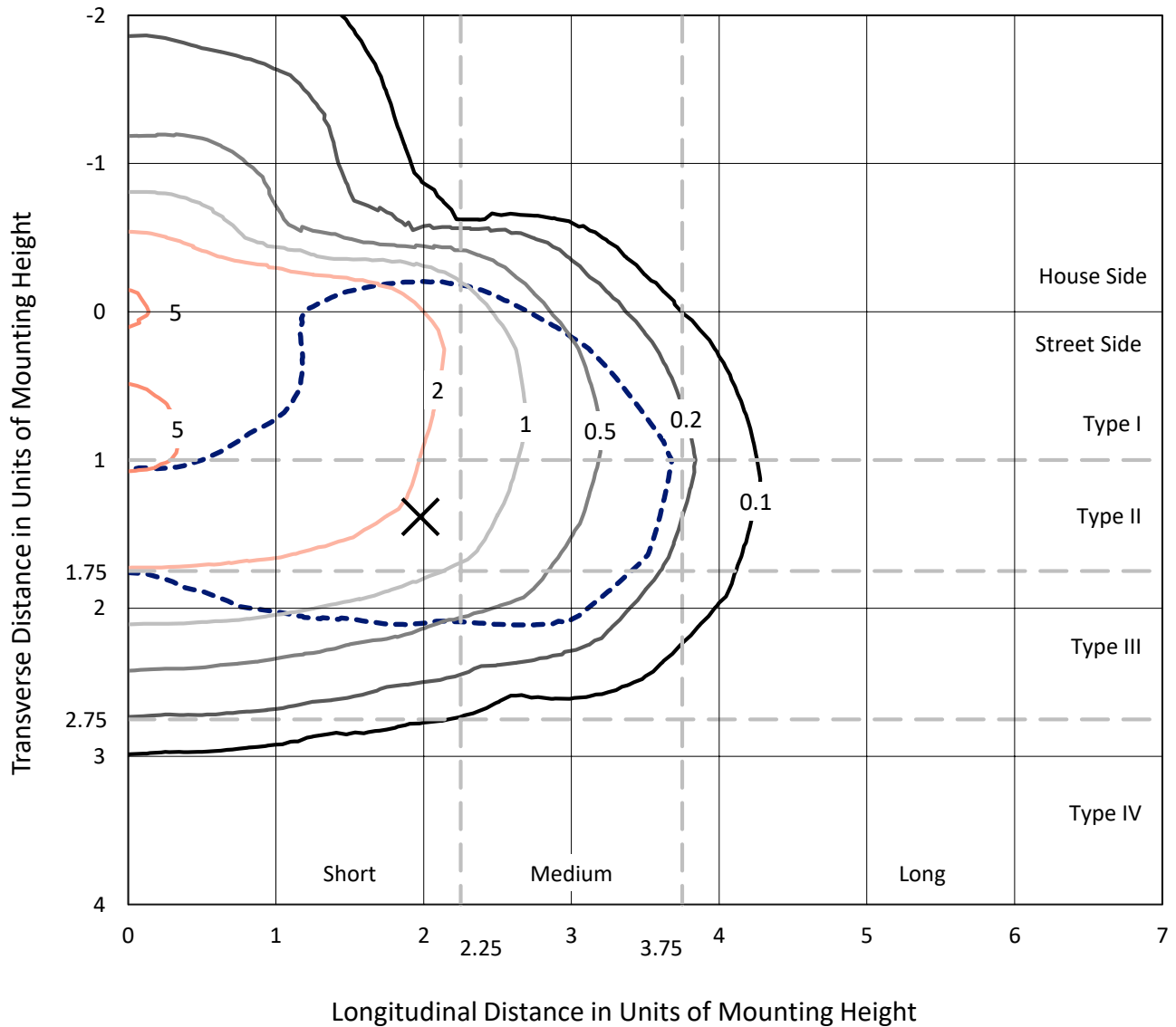


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Iso-Footcandle Lines of Horizontal Illumination

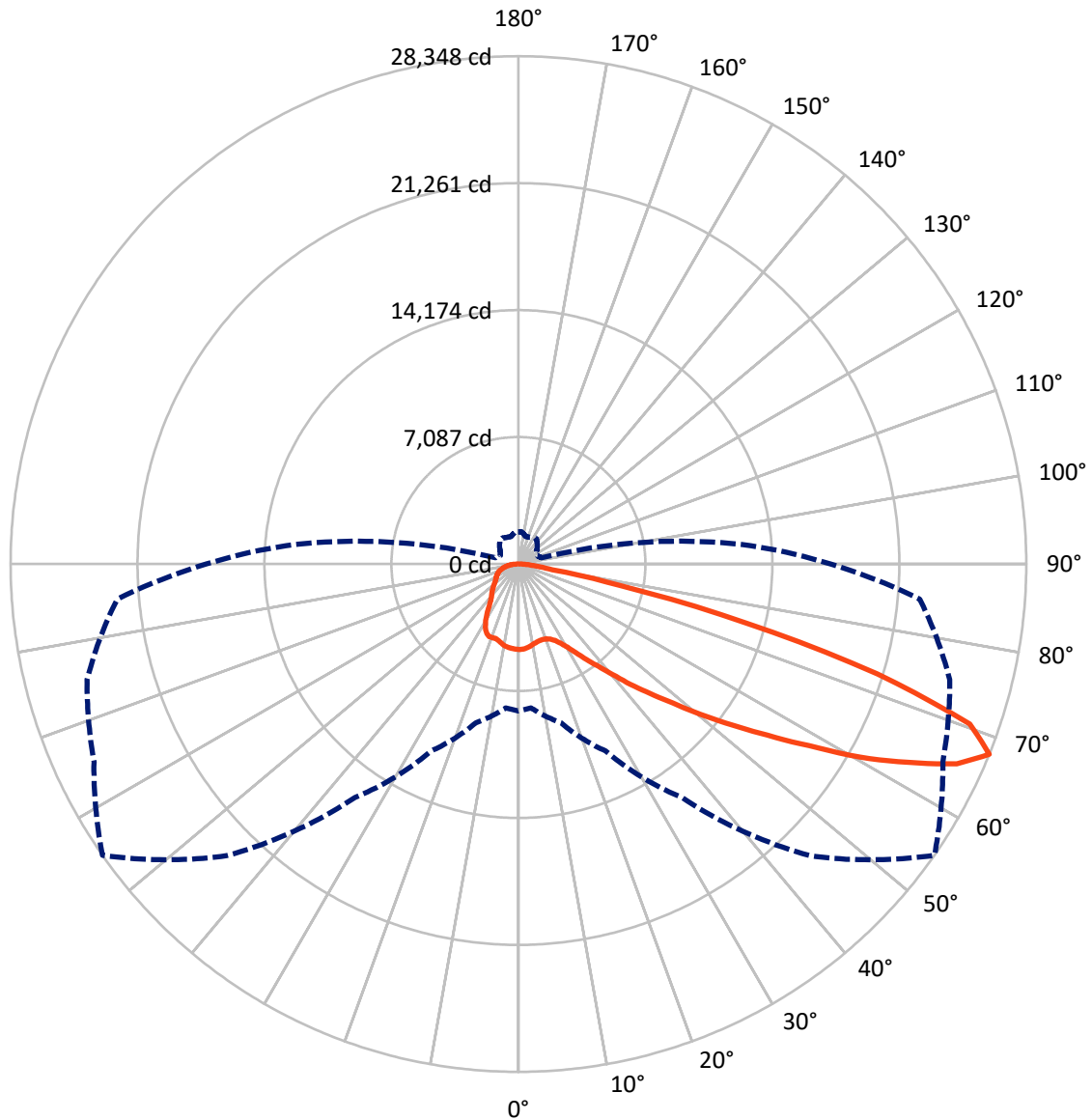
× Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8357.2	0.0	8357.2
	% Fixture	21.6	0.0	21.6
Street Side	Lumens	30329.7	0.0	30329.7
	% Fixture	78.4	0.0	78.4
Total	Lumens	38686.9	0.0	38686.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	445.3	1.2
10°-20°	1261.1	3.3
20°-30°	2112.5	5.5
30°-40°	3473.8	9.0
40°-50°	5847.5	15.1
50°-60°	9203.6	23.8
60°-70°	10983.5	28.4
70°-80°	4716.5	12.2
80°-90°	643.1	1.7
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°	38686.9	100.0
0°-180°	38686.9	100.0



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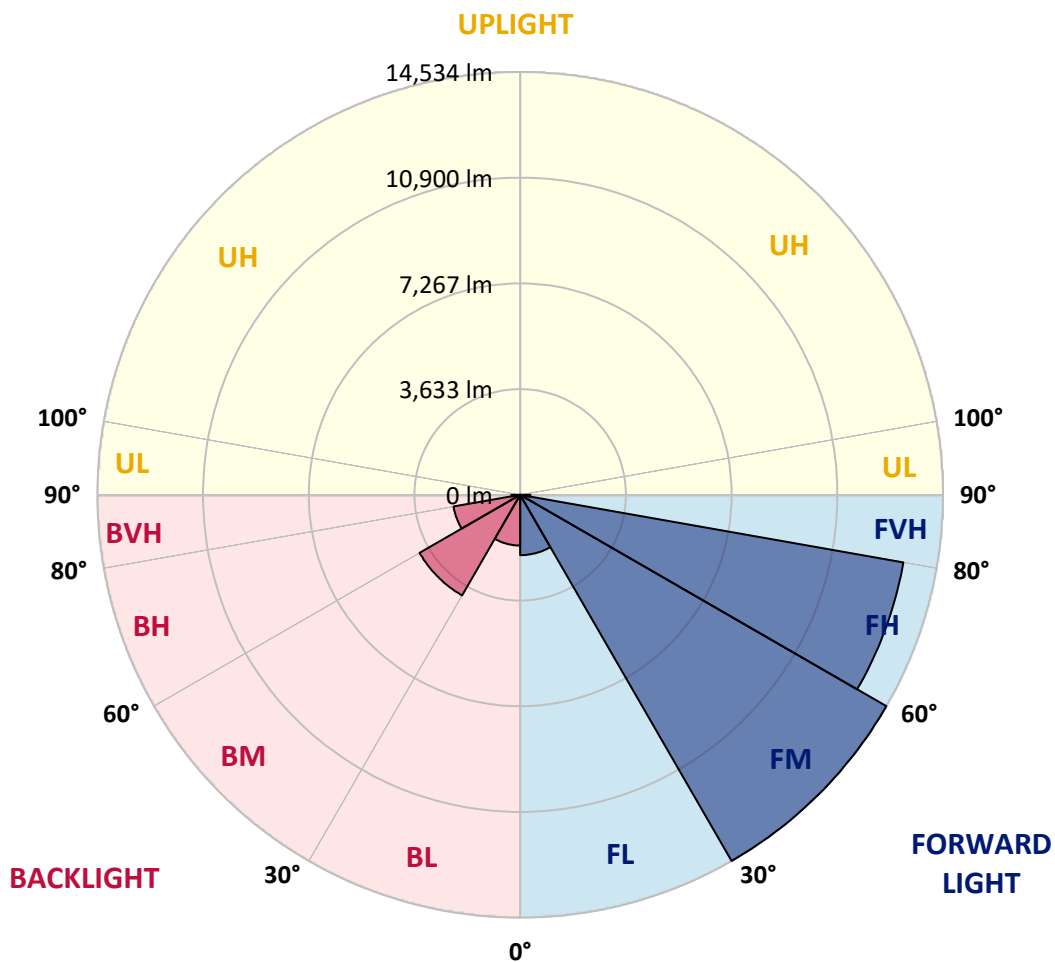
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2073.7	5.4			
FM	(30°-60°)	14533.6	37.6			
FH	(60°-80°)	13374.2	34.6			G5
FVH	(80°-90°)	348.1	0.9			G3/500
BL	(0°-30°)	1745.1	4.5	B3/2500		
BM	(30°-60°)	3991.3	10.3	B3/5000		
BH	(60°-80°)	2325.8	6.0	B3/2500		G3/2500
BVH	(80°-90°)	295.0	0.8			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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4770.5	4770.5	4770.5	4770.5	4770.5	4770.5	4770.5	4770.5	4770.5	4770.5	4770.5
2.5°	4729.4	4731.3	4735.0	4750.0	4763.0	4759.3	4761.2	4753.7	4751.8	4740.6	4751.8
5°	4669.6	4675.2	4677.1	4701.4	4716.3	4720.1	4714.5	4705.1	4693.9	4682.7	4688.3
7.5°	4533.2	4548.1	4550.0	4583.7	4607.9	4639.7	4641.6	4643.4	4637.8	4630.4	4641.6
10°	4447.2	4451.0	4449.1	4473.4	4492.1	4527.6	4548.1	4583.7	4598.6	4602.3	4609.8
12.5°	4441.6	4437.9	4432.3	4432.3	4426.7	4441.6	4479.0	4529.5	4565.0	4576.2	4585.5
15°	4501.4	4499.6	4480.9	4452.9	4417.3	4406.1	4437.9	4494.0	4540.7	4565.0	4574.3
17.5°	4636.0	4624.8	4594.9	4531.3	4454.7	4424.8	4428.6	4475.3	4529.5	4561.2	4570.6
20°	4882.6	4882.6	4819.1	4699.5	4563.1	4492.1	4458.5	4486.5	4538.8	4581.8	4594.9
22.5°	5308.7	5312.4	5205.9	5009.7	4779.9	4628.5	4544.4	4538.8	4600.5	4649.1	4664.0
25°	5912.2	5897.3	5747.8	5467.5	5118.1	4867.7	4721.9	4688.3	4740.6	4794.8	4813.5
27.5°	6614.8	6560.6	6383.1	6044.9	5592.7	5226.4	5002.2	4948.0	4998.5	5060.1	5078.8
30°	7309.9	7253.9	7042.7	6672.7	6170.1	5706.7	5385.3	5297.5	5368.5	5456.3	5467.5
32.5°	8005.0	8005.0	7769.6	7338.0	6790.5	6280.3	5895.4	5790.8	5908.5	6015.0	6039.3
35°	8836.6	8840.3	8612.3	8092.9	7504.3	6964.2	6540.1	6463.5	6641.0	6715.7	6773.6
37.5°	9858.7	9879.2	9585.9	8958.0	8313.4	7745.3	7240.8	7136.1	7313.7	7517.3	7704.2
40°	10963.0	10989.2	10665.9	9892.3	9247.7	8653.4	8107.8	7919.1	8214.3	8603.0	8844.0
42.5°	12016.9	12151.4	11839.4	11043.4	10350.1	9735.4	9182.3	8907.6	9277.6	9864.3	10073.6
45°	13539.8	13637.0	13093.2	12371.9	11719.8	11032.2	10299.7	10010.0	10527.6	11267.6	11310.6
47.5°	14554.5	14481.6	14205.0	13756.6	13343.6	12700.8	11598.3	11280.7	11968.3	12839.1	12598.0
50°	15094.5	15116.9	15079.5	15105.7	15120.6	14717.0	13190.4	12755.0	13575.3	14627.3	14072.4
52.5°	15599.0	15449.5	15572.8	16185.7	16925.7	16776.2	14922.6	14468.5	15298.2	16611.8	15630.8
55°	15587.8	15359.8	15761.6	16843.5	18448.6	18620.5	16867.8	16344.6	17120.0	18740.1	17282.6
57.5°	15036.5	15047.8	15666.3	17082.7	19510.0	20354.6	19125.0	18340.2	19052.1	20896.4	18790.5
60°	14277.9	14380.7	15272.0	17043.4	20360.2	21776.6	21894.3	20491.0	20945.0	22856.6	20038.8
62.5°	13054.0	13162.4	14391.9	16636.1	20231.2	23146.2	24398.2	22931.3	22923.9	24045.0	20405.0
65°	11123.7	11092.0	12383.1	15113.2	19149.3	24159.0	26885.3	25041.0	24415.0	24063.7	19668.8
67.5°	8203.1	8061.1	9169.2	11510.5	15916.7	23024.8	28348.4	26139.7	24923.3	22481.0	17419.0
70°	4256.6	4114.6	5011.6	6721.3	10467.8	17970.2	26728.3	25571.7	23800.2	18844.7	13646.3
72.5°	1820.0	1795.7	2160.1	2948.6	5063.9	10365.1	20958.1	22133.5	20421.8	14040.6	9382.2
75°	1223.9	1216.5	1352.9	1607.0	2277.8	4206.2	13115.6	15711.1	14941.2	8705.8	5276.9
77.5°	960.5	951.1	1031.5	1154.8	1476.2	1659.3	5820.7	8434.8	7807.0	3789.5	2309.6
80°	751.2	743.7	794.2	861.4	1061.4	1046.4	1915.3	3356.0	2597.3	1451.9	1123.0
82.5°	592.3	592.3	633.5	635.3	753.0	713.8	999.7	1478.1	1296.8	846.5	687.6
85°	541.9	541.9	584.9	474.6	491.4	450.3	620.4	876.4	822.2	347.6	299.0
87.5°	272.8	265.3	491.4	420.4	267.2	239.2	302.7	424.2	455.9	192.5	149.5
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4770.5	4770.5	4770.5	4770.5	4770.5	4770.5	4770.5	4770.5	4770.5	4770.5
2.5°	4748.1	4746.2	4750.0	4751.8	4766.8	4787.3	4796.7	4809.8	4817.2	4813.5
5°	4692.0	4695.8	4710.7	4721.9	4748.1	4781.7	4800.4	4815.4	4828.4	4822.8
7.5°	4645.3	4654.7	4677.1	4686.4	4701.4	4710.7	4708.8	4714.5	4725.7	4712.6
10°	4619.2	4630.4	4647.2	4634.1	4598.6	4548.1	4501.4	4477.1	4484.6	4475.3
12.5°	4593.0	4607.9	4594.9	4533.2	4434.2	4368.8	4333.3	4337.0	4353.8	4357.6
15°	4578.0	4583.7	4527.6	4411.7	4310.8	4301.5	4320.2	4316.4	4318.3	4318.3
17.5°	4578.0	4563.1	4458.5	4342.6	4299.6	4282.8	4224.9	4152.0	4120.2	4109.0
20°	4602.3	4563.1	4436.0	4359.4	4266.0	4122.1	3968.9	3834.3	3774.6	3757.7
22.5°	4675.2	4607.9	4499.6	4366.9	4101.6	3860.5	3617.6	3456.9	3348.5	3329.8
25°	4822.8	4748.1	4624.8	4267.9	3840.0	3496.1	3219.6	3040.2	2931.8	2916.9
27.5°	5080.7	5032.1	4692.0	4049.2	3492.4	3124.3	2868.3	2730.0	2649.7	2644.1
30°	5469.4	5445.1	4658.4	3726.0	3064.5	2763.6	2640.3	2560.0	2500.2	2498.3
32.5°	6089.7	5893.5	4548.1	3331.7	2674.0	2507.6	2457.2	2408.6	2361.9	2361.9
35°	6887.6	6256.0	4338.9	2909.4	2436.6	2365.6	2302.1	2225.5	2163.8	2160.1
37.5°	7825.7	6480.3	3963.3	2569.3	2324.5	2270.3	2176.9	2062.9	1954.5	1935.9
40°	8773.0	6547.5	3434.5	2360.0	2253.5	2175.0	2061.1	1926.5	1821.9	1816.3
42.5°	9641.9	6418.6	2873.9	2216.1	2182.5	2077.9	1958.3	1838.7	1756.5	1754.6
45°	10370.7	6084.1	2403.0	2079.7	2107.8	1990.0	1883.5	1786.4	1722.8	1709.8
47.5°	11056.4	5611.4	2072.3	1935.9	2033.0	1941.5	1851.8	1760.2	1698.5	1689.2
50°	11852.5	5101.3	1840.6	1795.7	1967.6	1924.6	1877.9	1782.6	1679.9	1668.7
52.5°	12816.7	4660.3	1659.3	1672.4	1917.2	1947.1	1945.2	1846.2	1666.8	1651.8
55°	13893.0	4170.7	1522.9	1571.5	1896.6	1988.2	1962.0	1906.0	1678.0	1655.6
57.5°	14952.5	3598.9	1427.6	1494.9	1866.7	1984.4	1881.7	1801.3	1704.2	1672.4
60°	15746.6	2830.9	1354.7	1427.6	1801.3	1922.8	1793.8	1687.3	1698.5	1674.3
62.5°	15798.9	2188.1	1266.9	1369.7	1702.3	1861.1	1735.9	1636.9	1722.8	1700.4
65°	14870.2	1653.7	1182.8	1300.5	1595.8	1821.9	1679.9	1608.9	1773.3	1749.0
67.5°	12519.6	1330.4	1111.8	1229.5	1489.3	1739.7	1629.4	1582.7	1818.1	1775.2
70°	9038.4	1134.2	1042.7	1143.6	1394.0	1646.2	1584.6	1536.0	1696.7	1629.4
72.5°	5564.7	982.9	964.2	1029.6	1321.1	1549.1	1517.3	1448.2	1528.5	1474.3
75°	2778.6	852.1	876.4	917.5	1218.3	1438.8	1405.2	1336.0	1347.3	1336.0
77.5°	1330.4	728.8	773.6	805.4	1085.7	1313.6	1278.1	1207.1	1194.0	1195.9
80°	842.7	609.2	652.1	674.6	969.8	1167.9	1132.4	1061.4	1210.8	1123.0
82.5°	526.9	495.2	506.4	547.5	844.6	1016.5	969.8	906.3	1091.3	863.3
85°	291.5	345.7	360.6	396.1	650.3	850.2	803.5	723.1	648.4	637.2
87.5°	173.8	205.5	211.2	237.3	437.3	614.8	543.8	515.7	427.9	426.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)