

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: P299137

Luminaire Tested: **GLNA-AF-08-LED-E1-T3-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299137
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-08-LED-E1-T3-7027
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 41313.6 lumens
Efficiency: N/A
Efficacy: 92.8 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

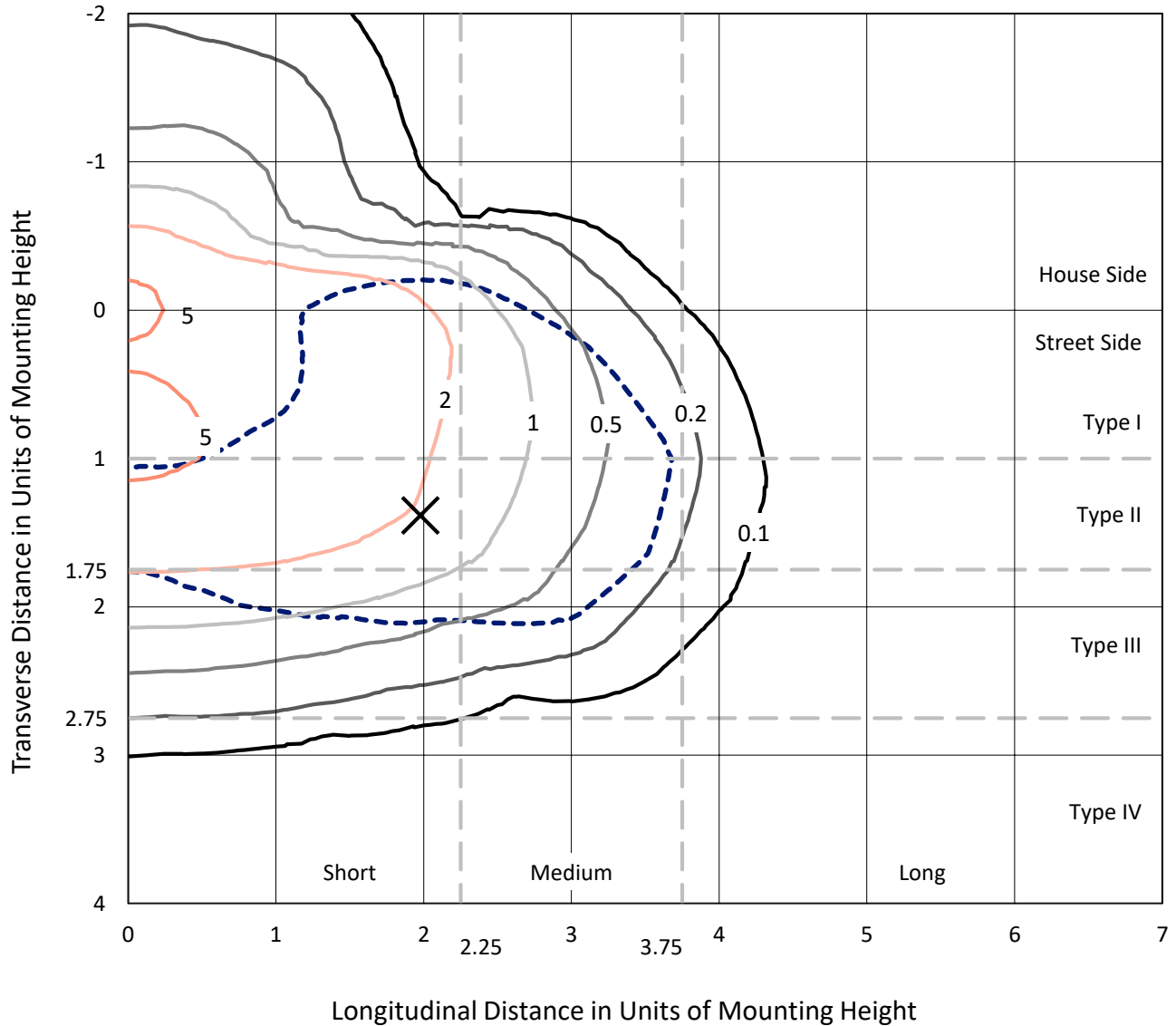
Input Watts (W): 445
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

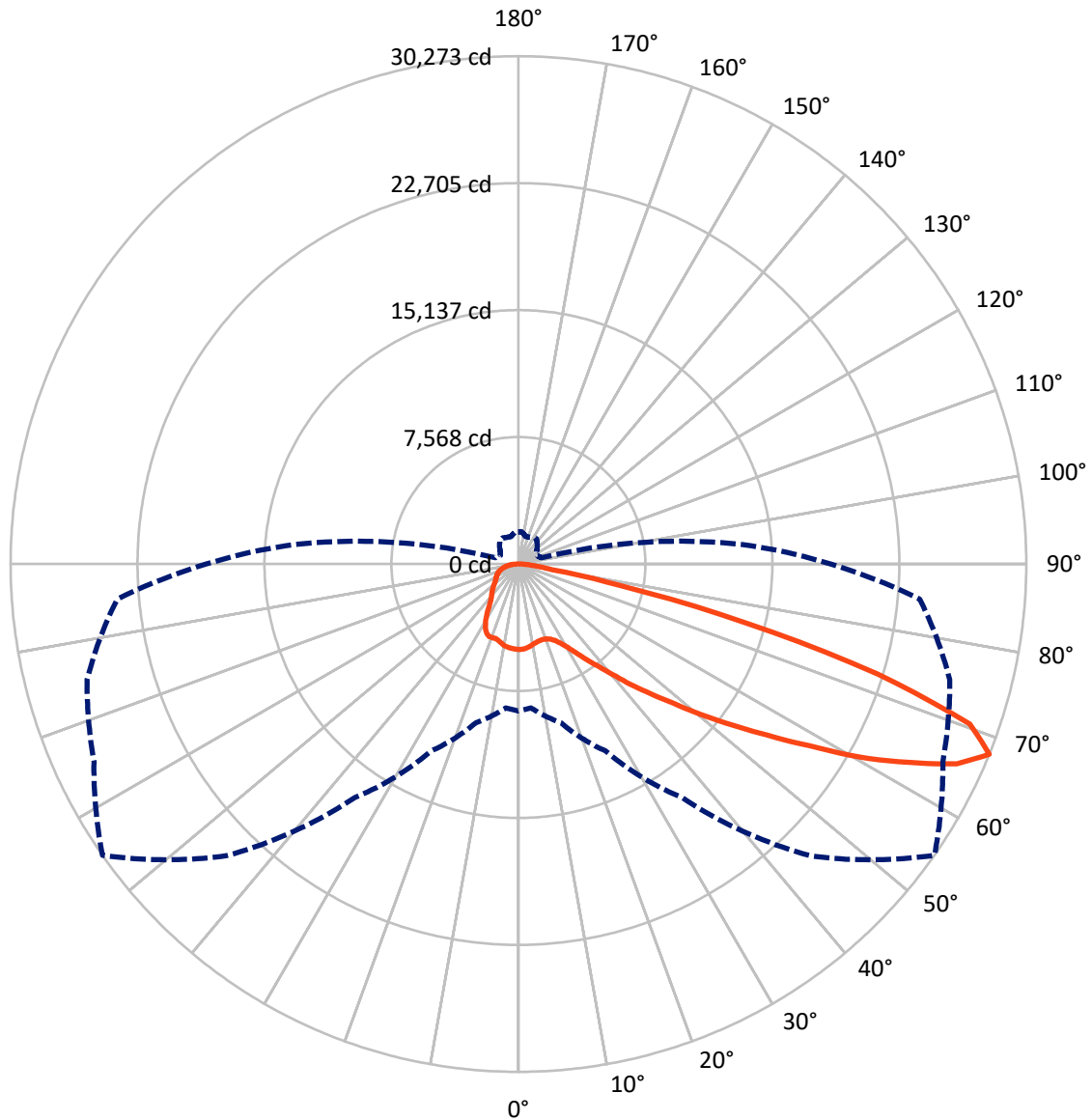
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.8 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	8924.6	0.0	8924.6
	% Fixture	21.6	0.0	21.6
Street Side	Lumens	32389.0	0.0	32389.0
	% Fixture	78.4	0.0	78.4
Total	Lumens	41313.6	0.0	41313.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	475.5	1.2
10°-20°	1346.7	3.3
20°-30°	2255.9	5.5
30°-40°	3709.7	9.0
40°-50°	6244.6	15.1
50°-60°	9828.5	23.8
60°-70°	11729.2	28.4
70°-80°	5036.8	12.2
80°-90°	686.7	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°	41313.6	100.0
0°-180°	41313.6	100.0



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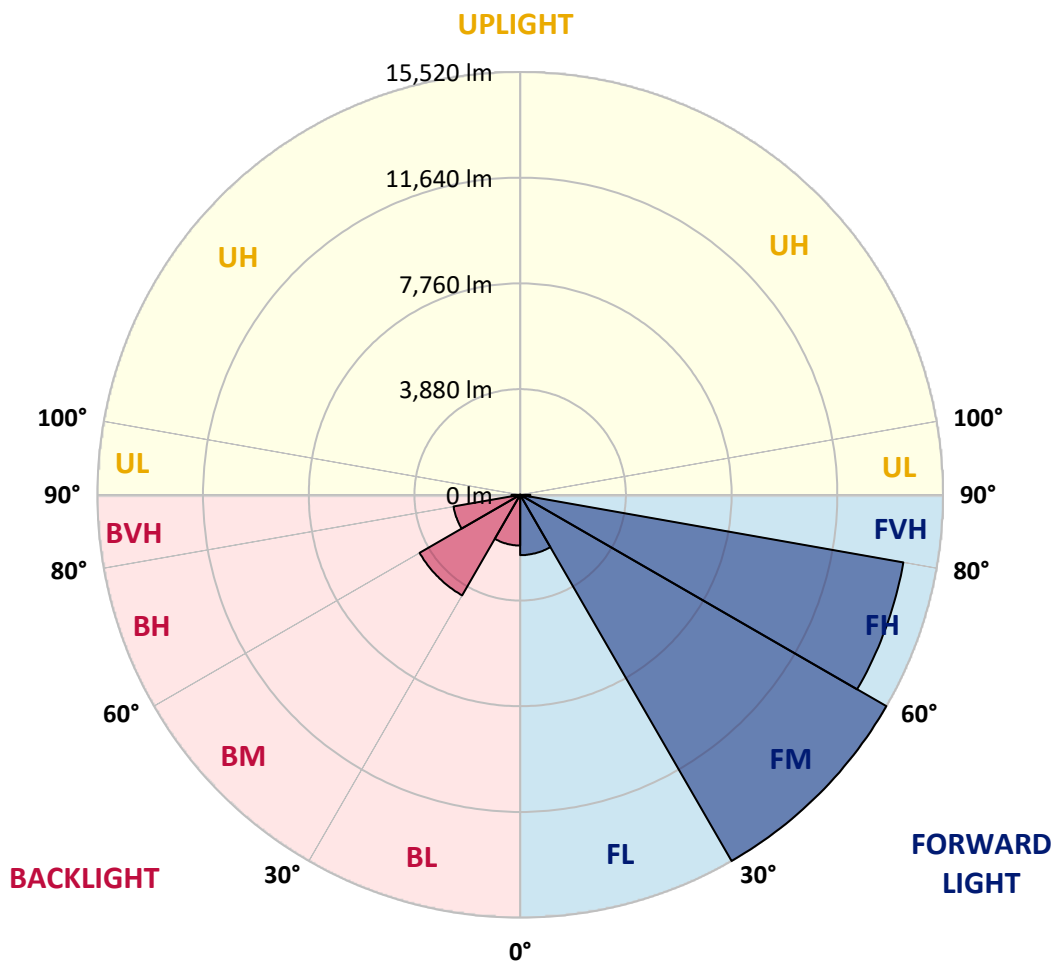
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2214.5	5.4			
FM	(30°-60°)	15520.4	37.6			
FH	(60°-80°)	14282.3	34.6			G5
FVH	(80°-90°)	371.7	0.9			G3/500
BL	(0°-30°)	1863.6	4.5	B3/2500		
BM	(30°-60°)	4262.3	10.3	B3/5000		
BH	(60°-80°)	2483.7	6.0	B3/2500		G3/2500
BVH	(80°-90°)	315.0	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°	5094.4	5094.4	5094.4	5094.4	5094.4	5094.4	5094.4	5094.4	5094.4	5094.4	5094.4
2.5°	5050.5	5052.5	5056.5	5072.5	5086.4	5082.4	5084.4	5076.5	5074.5	5062.5	5074.5
5°	4986.7	4992.6	4994.6	5020.6	5036.5	5040.5	5034.6	5024.6	5012.6	5000.6	5006.6
7.5°	4841.0	4857.0	4859.0	4894.9	4920.8	4954.7	4956.7	4958.7	4952.7	4944.8	4956.7
10°	4749.2	4753.2	4751.2	4777.1	4797.1	4835.0	4857.0	4894.9	4910.8	4914.8	4922.8
12.5°	4743.2	4739.2	4733.2	4733.2	4727.3	4743.2	4783.1	4837.0	4874.9	4886.9	4896.9
15°	4807.1	4805.1	4785.1	4755.2	4717.3	4705.3	4739.2	4799.1	4849.0	4874.9	4884.9
17.5°	4950.7	4938.8	4906.8	4839.0	4757.2	4725.3	4729.2	4779.1	4837.0	4870.9	4880.9
20°	5214.1	5214.1	5146.3	5018.6	4872.9	4797.1	4761.2	4791.1	4847.0	4892.9	4906.8
22.5°	5669.1	5673.1	5559.4	5349.8	5104.4	4942.8	4853.0	4847.0	4912.8	4964.7	4980.7
25°	6313.6	6297.7	6138.0	5838.7	5465.6	5198.2	5042.5	5006.6	5062.5	5120.4	5140.3
27.5°	7063.9	7006.1	6816.5	6455.3	5972.4	5581.3	5341.9	5284.0	5337.9	5403.7	5423.7
30°	7806.3	7746.4	7520.9	7125.8	6589.0	6094.1	5750.9	5657.1	5733.0	5826.8	5838.7
32.5°	8548.6	8548.6	8297.1	7836.2	7251.5	6706.8	6295.7	6183.9	6309.7	6423.4	6449.3
35°	9436.5	9440.5	9197.1	8642.4	8013.8	7437.1	6984.1	6902.3	7091.9	7171.7	7233.6
37.5°	10528.1	10550.0	10236.7	9566.3	8877.8	8271.2	7732.4	7620.7	7810.2	8027.7	8227.3
40°	11707.4	11735.3	11390.1	10564.0	9875.5	9241.0	8658.3	8456.8	8772.1	9187.1	9444.5
42.5°	12832.8	12976.5	12643.3	11793.2	11052.9	10396.4	9805.7	9512.4	9907.5	10534.1	10757.5
45°	14459.1	14562.9	13982.2	13212.0	12515.5	11781.2	10999.0	10689.7	11242.4	12032.6	12078.5
47.5°	15542.7	15464.8	15169.5	14690.6	14249.6	13563.2	12385.8	12046.6	12780.9	13710.8	13453.4
50°	16119.4	16143.3	16103.4	16131.3	16147.3	15716.3	14086.0	13621.0	14497.0	15620.5	15027.8
52.5°	16658.1	16498.5	16630.2	17284.7	18074.9	17915.3	15935.8	15450.9	16336.9	17739.7	16692.0
55°	16646.2	16402.7	16831.7	17987.1	19701.2	19884.8	18013.0	17454.3	18282.4	20012.5	18456.0
57.5°	16057.5	16069.5	16730.0	18242.5	20834.6	21736.6	20423.6	19585.5	20345.7	22315.3	20066.4
60°	15247.3	15357.1	16308.9	18200.6	21742.6	23255.1	23380.8	21882.2	22367.1	24408.5	21399.3
62.5°	13940.3	14056.0	15369.1	17765.6	21604.9	24717.8	26054.8	24488.3	24480.3	25677.6	21790.5
65°	11879.0	11845.1	13223.9	16139.3	20449.5	25799.3	28710.7	26741.2	26072.7	25697.6	21004.2
67.5°	8760.1	8608.4	9791.7	12292.1	16997.4	24588.1	30273.2	27914.5	26615.5	24007.4	18601.7
70°	4545.7	4394.0	5351.8	7177.7	11178.6	19190.4	28543.1	27307.9	25416.2	20124.2	14572.9
72.5°	1943.6	1917.6	2306.8	3148.8	5407.7	11068.8	22381.1	23636.3	21808.4	14993.9	10019.2
75°	1307.0	1299.0	1444.7	1716.1	2432.5	4491.8	14006.2	16777.9	15955.7	9296.9	5635.2
77.5°	1025.7	1015.7	1101.5	1233.2	1576.4	1772.0	6215.9	9007.5	8337.0	4046.8	2466.4
80°	802.2	794.2	848.1	919.9	1133.4	1117.5	2045.3	3583.9	2773.7	1550.5	1199.3
82.5°	632.6	632.6	676.5	678.5	804.2	762.3	1067.6	1578.4	1384.9	903.9	734.3
85°	578.7	578.7	624.6	506.8	524.8	480.9	662.5	935.9	878.0	371.2	319.3
87.5°	291.3	283.4	524.8	449.0	285.4	255.4	323.3	453.0	486.9	205.5	159.6
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°	5094.4	5094.4	5094.4	5094.4	5094.4	5094.4	5094.4	5094.4	5094.4	5094.4
2.5°	5070.5	5068.5	5072.5	5074.5	5090.4	5112.4	5122.4	5136.3	5144.3	5140.3
5°	5010.6	5014.6	5030.6	5042.5	5070.5	5106.4	5126.3	5142.3	5156.3	5150.3
7.5°	4960.7	4970.7	4994.6	5004.6	5020.6	5030.6	5028.6	5034.6	5046.5	5032.6
10°	4932.8	4944.8	4962.7	4948.7	4910.8	4857.0	4807.1	4781.1	4789.1	4779.1
12.5°	4904.8	4920.8	4906.8	4841.0	4735.2	4665.4	4627.5	4631.5	4649.4	4653.4
15°	4888.9	4894.9	4835.0	4711.3	4603.5	4593.6	4613.5	4609.5	4611.5	4611.5
17.5°	4888.9	4872.9	4761.2	4637.5	4591.6	4573.6	4511.7	4433.9	4400.0	4388.0
20°	4914.8	4872.9	4737.2	4655.4	4555.6	4402.0	4238.4	4094.7	4030.8	4012.9
22.5°	4992.6	4920.8	4805.1	4663.4	4380.0	4122.6	3863.2	3691.6	3575.9	3555.9
25°	5150.3	5070.5	4938.8	4557.6	4100.7	3733.5	3438.2	3246.6	3130.9	3114.9
27.5°	5425.7	5373.8	5010.6	4324.2	3729.5	3336.4	3063.0	2915.4	2829.6	2823.6
30°	5840.7	5814.8	4974.7	3979.0	3272.6	2951.3	2819.6	2733.8	2669.9	2667.9
32.5°	6503.2	6293.7	4857.0	3557.9	2855.5	2677.9	2624.0	2572.2	2522.3	2522.3
35°	7355.3	6680.8	4633.5	3106.9	2602.1	2526.3	2458.4	2376.6	2310.7	2306.8
37.5°	8357.0	6920.3	4232.4	2743.8	2482.4	2424.5	2324.7	2203.0	2087.3	2067.3
40°	9368.7	6992.1	3667.7	2520.3	2406.5	2322.7	2201.0	2057.3	1945.6	1939.6
42.5°	10296.6	6854.4	3069.0	2366.6	2330.7	2219.0	2091.2	1963.5	1875.7	1873.7
45°	11074.8	6497.2	2566.2	2221.0	2250.9	2125.2	2011.4	1907.7	1839.8	1825.8
47.5°	11807.2	5992.4	2213.0	2067.3	2171.1	2073.3	1977.5	1879.7	1813.9	1803.9
50°	12657.2	5447.6	1965.5	1917.6	2101.2	2055.3	2005.4	1903.7	1793.9	1781.9
52.5°	13686.9	4976.7	1772.0	1785.9	2047.3	2079.3	2077.3	1971.5	1780.0	1764.0
55°	14836.3	4453.9	1626.3	1678.2	2025.4	2123.2	2095.2	2035.4	1791.9	1768.0
57.5°	15967.7	3843.3	1524.5	1596.4	1993.5	2119.2	2009.4	1923.6	1819.9	1785.9
60°	16815.8	3023.1	1446.7	1524.5	1923.6	2053.3	1915.6	1801.9	1813.9	1787.9
62.5°	16871.6	2336.7	1352.9	1462.7	1817.9	1987.5	1853.8	1748.0	1839.8	1815.9
65°	15879.9	1766.0	1263.1	1388.8	1704.1	1945.6	1793.9	1718.1	1893.7	1867.8
67.5°	13369.6	1420.8	1187.3	1313.0	1590.4	1857.8	1740.0	1690.2	1941.6	1895.7
70°	9652.1	1211.2	1113.5	1221.2	1488.6	1758.0	1692.2	1640.3	1811.9	1740.0
72.5°	5942.5	1049.6	1029.7	1099.5	1410.8	1654.2	1620.3	1546.5	1632.3	1574.4
75°	2967.3	909.9	935.9	979.8	1301.0	1536.5	1500.6	1426.8	1438.7	1426.8
77.5°	1420.8	778.2	826.1	860.0	1159.4	1402.8	1364.9	1289.1	1275.1	1277.1
80°	900.0	650.5	696.4	720.4	1035.6	1247.2	1209.3	1133.4	1293.1	1199.3
82.5°	562.7	528.8	540.8	584.7	901.9	1085.5	1035.6	967.8	1165.4	921.9
85°	311.3	369.2	385.1	423.0	694.4	907.9	858.0	772.2	692.4	680.5
87.5°	185.6	219.5	225.5	253.4	466.9	656.5	580.7	550.7	457.0	455.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)