

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: P301122

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301122
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
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 42229 lumens
Efficiency: N/A
Efficacy: 94.9 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

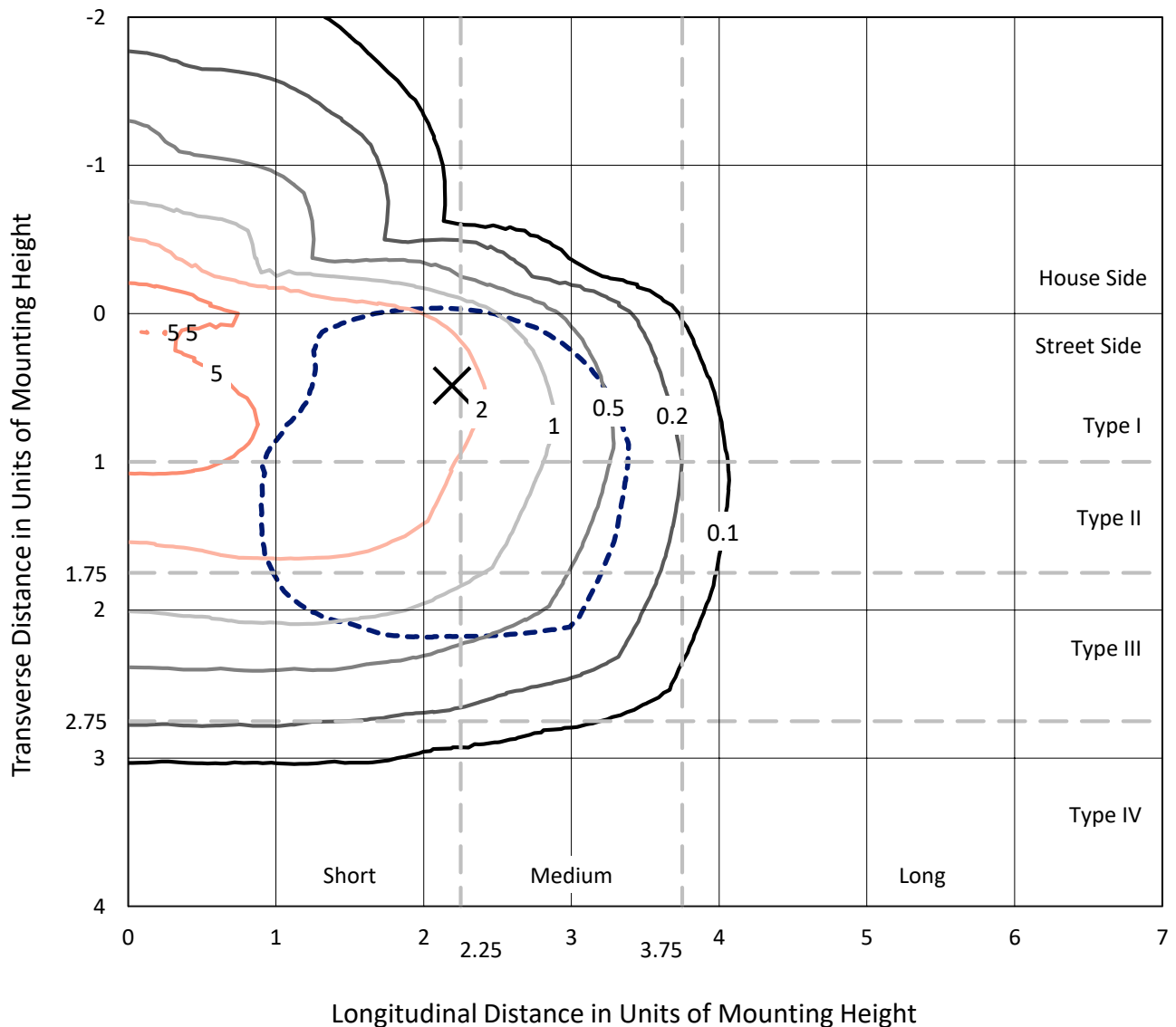


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

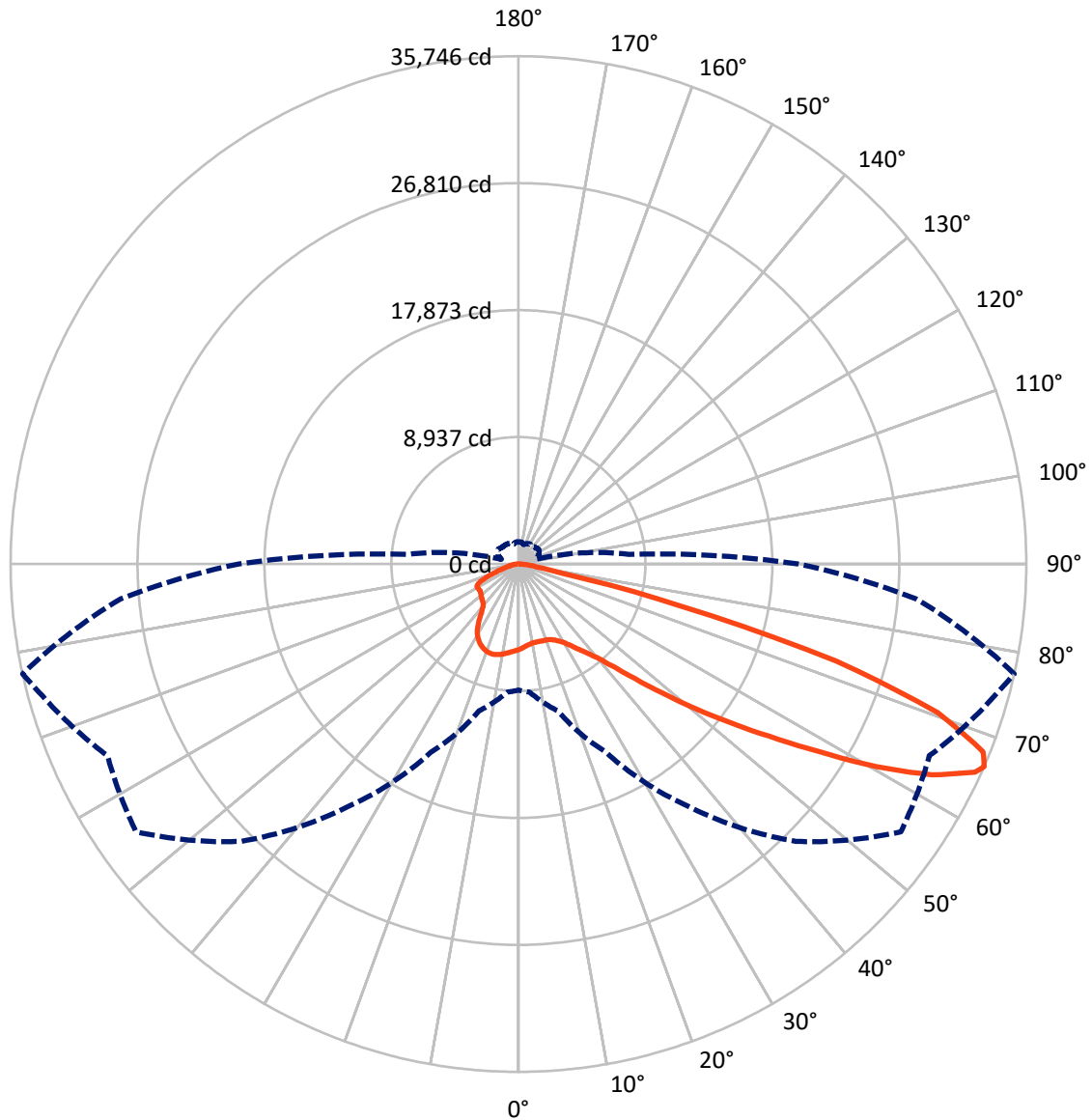


Based on 30 foot mounting height. Maximum calculated value = 8.2 fc
 Type III - Short - Full Cutoff

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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	7214.6	0.0	7214.6
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	35014.5	0.0	35014.5
	% Fixture	82.9	0.0	82.9
Total	Lumens	42229.0	0.0	42229.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	537.6	1.3
10°-20°	1516.8	3.6
20°-30°	2588.6	6.1
30°-40°	4143.9	9.8
40°-50°	6402.0	15.2
50°-60°	9080.2	21.5
60°-70°	12146.8	28.8
70°-80°	5275.2	12.5
80°-90°	537.9	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°	42229.0	100.0
0°-180°	42229.0	100.0



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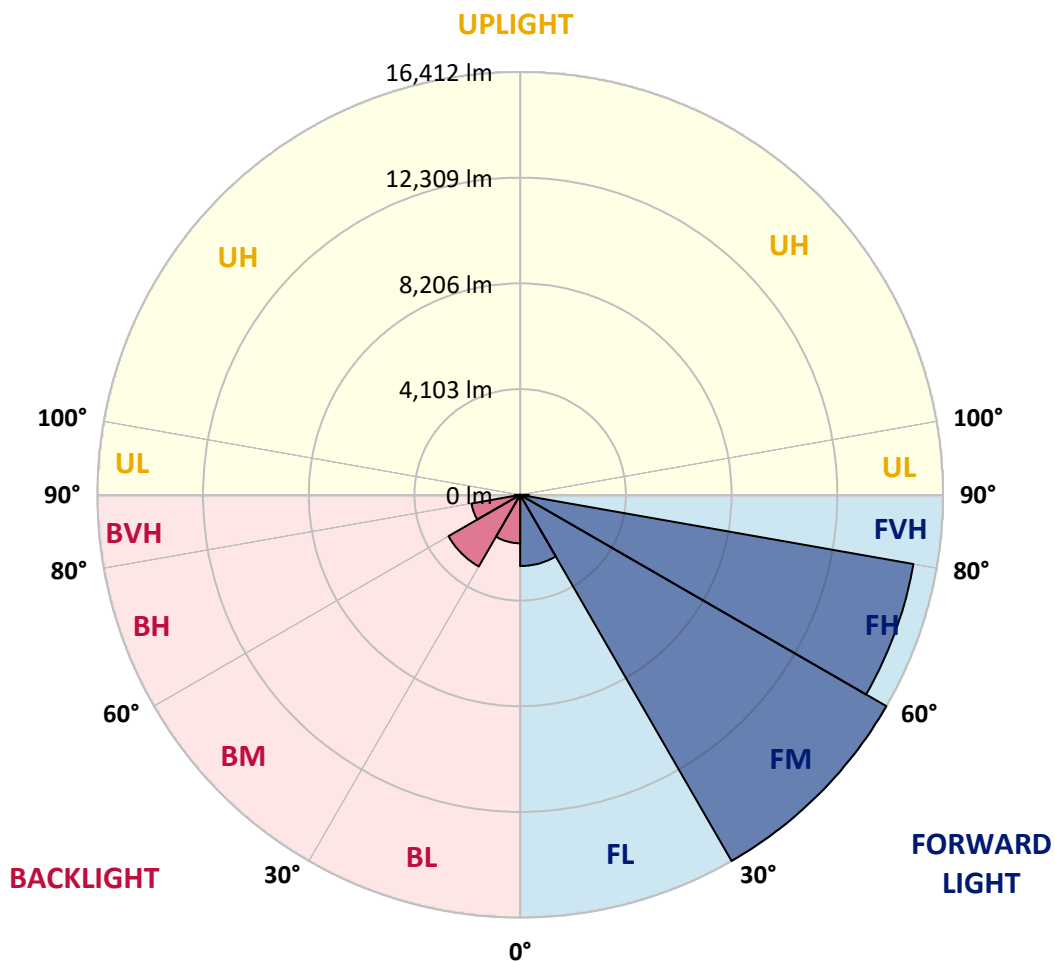
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2764.1	6.5			
FM (30°-60°)	16412.4	38.9			
FH (60°-80°)	15500.6	36.7			G5
FVH (80°-90°)	337.4	0.8			G3/500
BL (0°-30°)	1879.0	4.4	B3/2500		
BM (30°-60°)	3213.7	7.6	B3/5000		
BH (60°-80°)	1921.4	4.5	B3/2500		G3/2500
BVH (80°-90°)	200.5	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°	6017.8	6017.8	6017.8	6017.8	6017.8	6017.8	6017.8	6017.8	6017.8	6017.8	6017.8
2.5°	5323.6	5359.3	5389.5	5417.3	5472.9	5564.7	5670.4	5756.2	5880.0	5904.2	5970.1
5°	4834.9	4834.9	4858.4	4900.7	4976.3	5114.0	5257.8	5449.3	5718.7	5782.2	5958.0
7.5°	4597.5	4599.3	4613.2	4648.8	4714.7	4840.3	4998.0	5223.9	5588.8	5694.6	5993.6
10°	4685.1	4665.1	4634.9	4617.4	4627.1	4700.8	4850.6	5101.9	5509.1	5644.4	6074.0
12.5°	5175.6	5138.2	5034.2	4896.5	4764.8	4711.0	4798.6	5043.9	5475.3	5632.9	6179.7
15°	5977.9	5962.2	5768.3	5483.1	5164.1	4896.5	4836.7	5022.2	5478.9	5646.8	6305.3
17.5°	6983.8	6961.4	6706.5	6291.5	5770.7	5249.9	4970.2	5040.3	5492.8	5670.4	6426.8
20°	7999.3	7931.1	7656.2	7161.4	6492.6	5730.2	5191.9	5086.2	5510.9	5696.4	6554.9
22.5°	8757.5	8701.3	8454.3	7973.4	7203.1	6287.2	5489.2	5166.0	5568.9	5772.5	6711.9
25°	9423.9	9427.5	9182.2	8717.7	7921.4	6878.1	5872.2	5379.2	5716.3	5927.8	6927.6
27.5°	10247.9	10200.2	9970.6	9509.7	8631.9	7474.3	6334.9	5672.8	5936.2	6149.5	7210.9
30°	11233.3	11199.4	10934.2	10411.6	9419.7	8114.7	6863.6	6013.6	6219.6	6440.7	7581.9
32.5°	12392.6	12376.9	12101.4	11429.0	10329.5	8869.3	7484.6	6464.8	6642.5	6872.0	8114.7
35°	13753.7	13755.5	13430.5	12622.2	11325.1	9747.1	8188.4	7045.4	7157.2	7396.4	8749.7
37.5°	14591.6	14693.1	14571.7	13747.7	12452.4	10728.8	9102.5	7815.7	7743.8	7985.4	9429.9
40°	14771.1	14894.9	15279.8	14861.1	13713.8	11810.2	9912.6	8555.7	8466.3	8761.2	10305.9
42.5°	14519.8	14691.3	15505.7	15800.5	15052.6	13142.9	11001.9	9655.3	9541.7	9938.6	11395.2
45°	14369.9	14498.0	15439.9	16289.9	16213.7	14649.6	12389.0	11035.7	10994.0	11514.8	12652.4
47.5°	14110.8	14226.8	15132.3	16403.4	16896.4	16030.1	14055.2	12724.3	12805.8	13488.5	14070.9
50°	14250.3	14298.0	14789.2	16114.1	17094.0	17042.0	15916.5	14679.2	14959.0	15810.8	15677.3
52.5°	14230.4	14354.2	14749.3	15639.2	17120.0	17666.7	17750.1	16860.2	17449.2	18426.7	17458.9
55°	11505.1	11732.3	14280.5	15519.6	17211.2	18278.7	19382.4	19158.9	20256.0	21395.4	19470.0
57.5°	10986.2	11130.0	12542.4	15770.9	17698.1	19448.3	21197.9	21689.0	23524.4	24847.4	21920.4
60°	10884.1	11061.7	12524.3	16078.4	18685.9	21353.7	23889.9	24752.0	27501.4	28950.1	24761.6
62.5°	10566.9	10758.4	12406.5	16037.9	20088.7	23989.6	27335.9	28008.3	31272.4	32681.2	27138.3
65°	9561.6	9741.1	11447.1	15393.9	21034.7	26803.0	31413.8	30993.3	34249.6	35308.6	28323.0
66°	8872.9	9048.7	10690.8	14635.8	20814.8	27601.1	32858.9	31917.0	34915.9	35746.0	28091.6
67.5°	7613.9	7751.6	9222.1	12937.5	19647.6	27824.6	34073.8	32611.2	34985.4	35279.0	26769.2
70°	4810.7	4850.6	5993.6	8930.9	14873.2	24130.9	32223.9	30887.6	32100.7	31306.2	22441.2
72.5°	2087.3	2073.4	2877.5	4543.1	8420.4	16192.0	26066.6	25486.0	25180.9	23369.1	15709.3
75°	1161.1	1177.5	1494.6	2109.0	3421.8	7953.4	17051.7	16317.7	13777.3	11756.4	7123.3
77.5°	931.6	953.9	1239.1	1496.4	1536.3	2773.6	7979.4	6492.6	3908.7	3136.7	1979.1
80°	736.4	776.3	1081.4	1165.4	1035.5	1143.0	2577.8	2061.3	1546.6	1418.5	1025.8
82.5°	582.4	610.8	927.9	882.0	724.4	770.3	1234.8	1203.4	1005.9	915.9	592.7
85°	419.3	470.6	762.4	664.5	474.8	519.0	819.8	786.0	576.3	470.6	261.6
87.5°	171.6	223.5	538.9	441.0	265.2	241.7	409.0	384.8	273.1	199.4	129.9
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°	6017.8	6017.8	6017.8	6017.8	6017.8	6017.8	6017.8	6017.8	6017.8	6017.8	6017.8
2.5°	6011.7	6059.5	6121.7	6159.8	6179.7	6193.6	6215.3	6213.5	6219.6	6221.4	6229.2
5°	6051.6	6131.4	6221.4	6245.5	6245.5	6223.2	6201.4	6165.2	6151.3	6147.7	6151.3
7.5°	6155.5	6243.1	6321.1	6293.3	6233.5	6145.3	6031.7	5932.0	5878.2	5860.1	5856.5
10°	6287.2	6392.9	6425.0	6319.2	6143.4	5932.0	5706.7	5542.9	5449.3	5423.3	5415.5
12.5°	6446.7	6546.4	6502.9	6279.4	5953.7	5613.0	5301.3	5040.3	4844.6	4782.9	4778.7
15°	6622.5	6700.5	6546.4	6155.5	5670.4	5167.8	4613.2	4162.5	3919.0	3841.1	3835.0
17.5°	6786.2	6826.1	6520.4	5939.8	5253.5	4439.8	3703.3	3356.0	3272.6	3292.5	3296.2
20°	6925.8	6925.8	6432.8	5630.5	4597.5	3479.8	3014.6	3009.2	3069.0	3128.8	3140.9
22.5°	7079.2	6987.4	6279.4	5193.7	3667.1	2847.3	2779.6	2835.2	2902.9	2968.7	2979.0
25°	7268.9	7037.6	6065.5	4531.6	2882.9	2585.7	2611.7	2657.6	2691.4	2733.7	2739.7
27.5°	7480.4	7101.0	5784.6	3619.4	2502.3	2422.6	2442.5	2458.2	2454.0	2470.3	2473.9
30°	7733.5	7175.3	5399.1	2829.2	2344.6	2282.4	2246.8	2232.9	2232.9	2258.9	2268.5
32.5°	8073.0	7284.6	4846.4	2424.4	2268.5	2182.7	2067.3	2015.4	2035.3	2122.9	2142.9
35°	8446.4	7402.5	4098.4	2286.6	2252.8	2136.8	1957.4	1861.3	1863.8	1945.3	1971.3
37.5°	8853.0	7552.3	3278.0	2260.7	2288.5	2139.2	1899.4	1767.7	1713.9	1713.9	1724.2
40°	9373.7	7705.7	2654.0	2278.8	2364.6	2162.8	1869.8	1694.0	1542.4	1546.6	1554.4
42.5°	10052.2	7837.4	2318.7	2316.2	2456.4	2194.8	1867.4	1596.1	1464.4	1554.4	1636.0
45°	10806.7	7903.3	2170.7	2350.7	2530.1	2214.8	1836.0	1580.4	1474.7	1741.7	1897.6
47.5°	11674.3	7865.2	2089.1	2362.2	2548.2	2214.8	1799.7	1618.5	1544.2	2017.2	2199.0
50°	12626.4	7755.9	2009.3	2338.6	2542.2	2210.5	1833.5	1655.9	1570.1	2064.9	2190.6
52.5°	13745.9	7664.0	1925.4	2286.6	2499.9	2188.8	1873.4	1640.2	1488.6	1877.6	1965.2
55°	15022.4	7690.0	1831.7	2212.9	2434.1	2147.1	1859.5	1576.2	1402.8	1654.1	1707.9
57.5°	16654.8	7999.3	1720.0	2119.3	2344.6	2077.0	1810.0	1546.6	1376.8	1500.7	1532.7
60°	18476.2	8537.6	1580.4	2025.1	2232.9	1965.2	1771.9	1560.5	1388.9	1488.6	1504.3
62.5°	19813.2	8851.2	1460.8	1887.3	2081.2	1841.4	1724.2	1578.0	1420.9	1530.3	1526.6
65°	20176.3	8336.4	1311.0	1686.1	1875.8	1712.1	1663.8	1597.9	1434.8	1564.1	1546.6
66°	19667.6	7781.9	1245.1	1592.5	1771.9	1648.1	1634.2	1596.1	1428.8	1568.3	1538.1
67.5°	18432.7	6644.3	1131.5	1454.8	1606.4	1552.6	1586.5	1578.0	1412.5	1564.1	1522.4
70°	15032.7	4533.4	967.8	1211.3	1336.9	1366.6	1494.6	1514.6	1360.5	1494.6	1402.8
72.5°	10503.5	2761.5	856.1	940.0	1081.4	1165.4	1369.0	1426.4	1291.0	1304.9	1217.3
75°	5075.9	1466.8	776.3	728.6	839.7	973.9	1217.3	1306.7	1181.1	1091.7	1059.7
77.5°	1582.2	895.9	658.5	586.6	658.5	786.0	1017.4	1145.4	1051.8	914.1	902.0
80°	850.0	658.5	506.9	470.6	520.8	616.8	799.9	955.7	903.8	819.8	732.2
82.5°	560.6	427.1	375.2	364.9	396.9	470.6	594.5	792.0	792.0	702.6	511.1
85°	289.4	261.6	257.4	257.4	277.3	313.5	404.8	610.8	650.7	370.9	307.5
87.5°	143.8	149.8	139.6	145.6	155.9	153.5	193.3	307.5	367.3	225.3	187.3
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)