

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: P301105

Luminaire Tested: **GLNA-AF-05-LED-E1-T3R-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301105
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-05-LED-E1-T3R-7030
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29319.5 lumens
Efficiency: N/A
Efficacy: 105.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B3 - U0 - G4

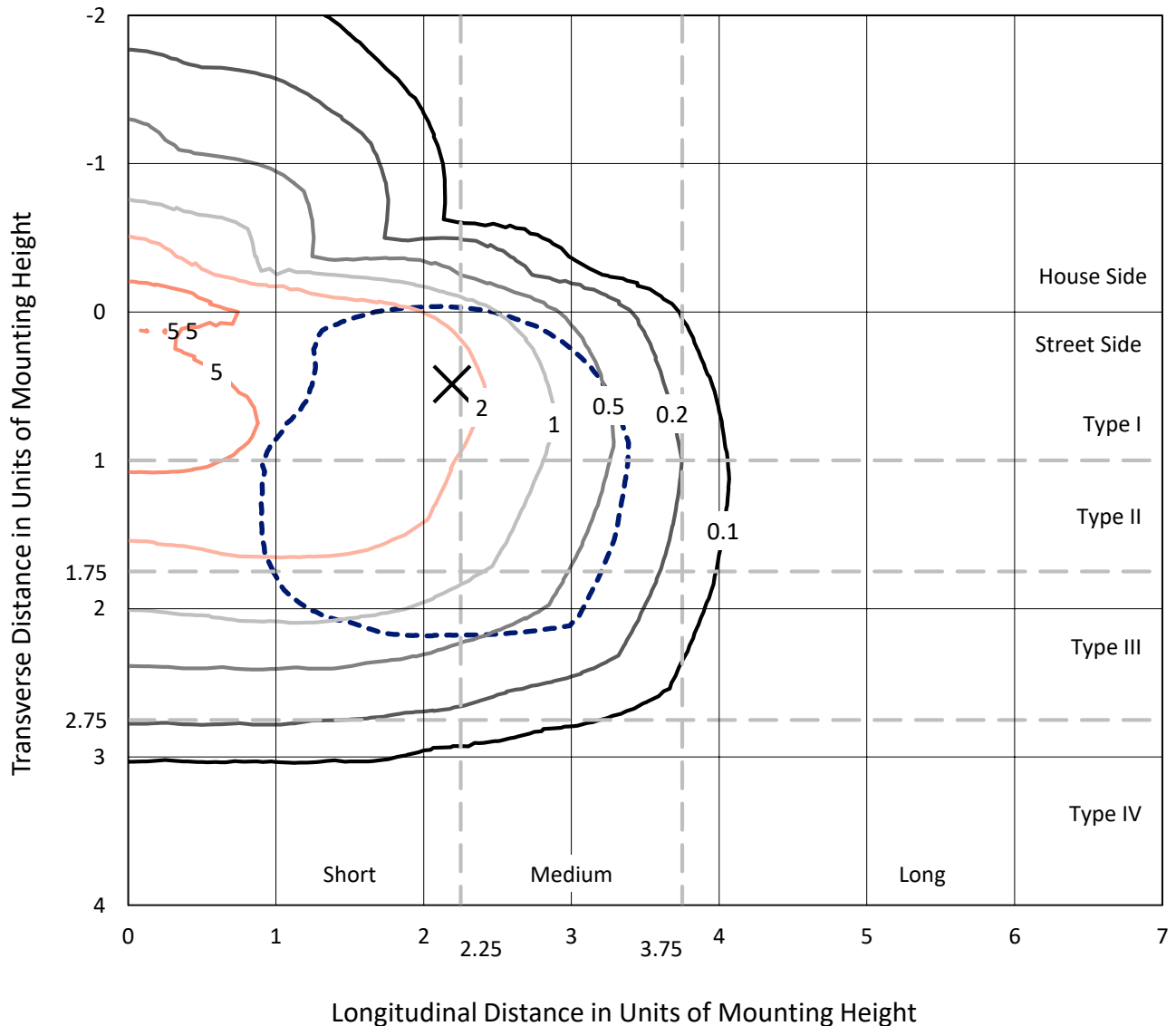
Input Watts (W): 279
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

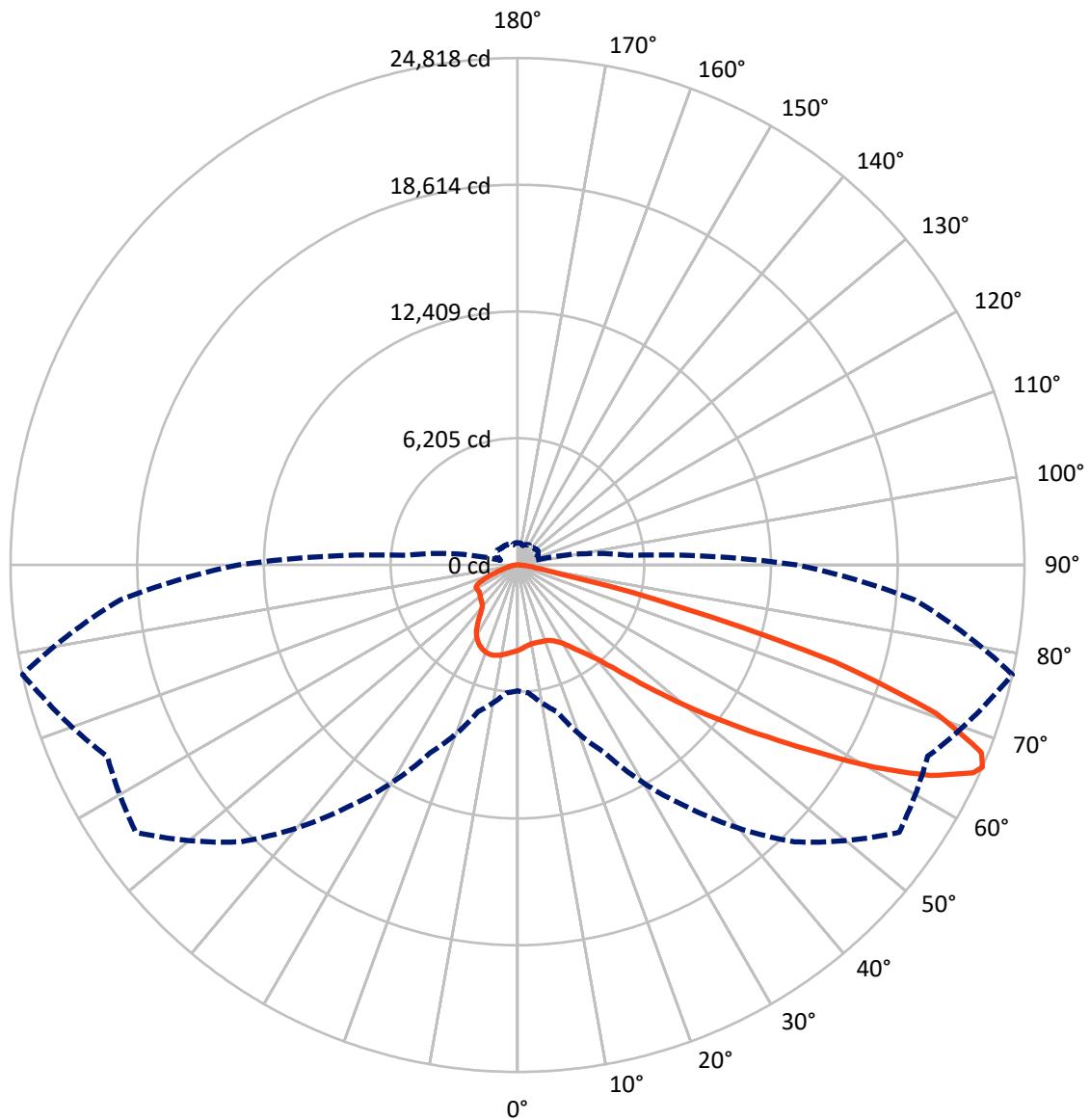


Based on 25 foot mounting height. Maximum calculated value = 8.2 fc
 Type III - Short - Full Cutoff

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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	5009.1	0.0	5009.1
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	24310.4	0.0	24310.4
	% Fixture	82.9	0.0	82.9
Total	Lumens	29319.5	0.0	29319.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	373.3	1.3
10°-20°	1053.1	3.6
20°-30°	1797.3	6.1
30°-40°	2877.1	9.8
40°-50°	4444.9	15.2
50°-60°	6304.4	21.5
60°-70°	8433.5	28.8
70°-80°	3662.5	12.5
80°-90°	373.5	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°	29319.5	100.0
0°-180°	29319.5	100.0



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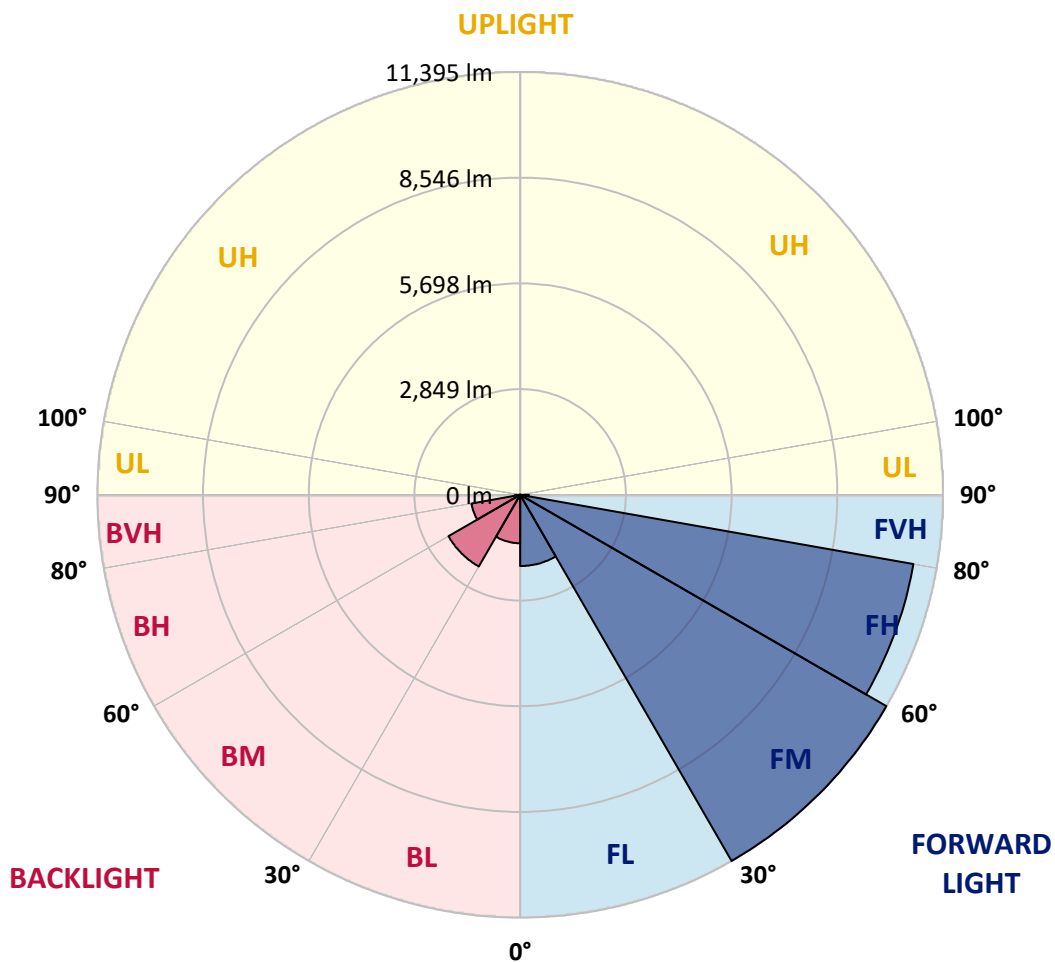
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1919.1	6.5			
FM	(30°-60°)	11395.1	38.9			
FH	(60°-80°)	10762.0	36.7			G4/12000
FVH	(80°-90°)	234.2	0.8			G3/500
BL	(0°-30°)	1304.6	4.4	B3/2500		
BM	(30°-60°)	2231.3	7.6	B2/2500		
BH	(60°-80°)	1334.0	4.5	B3/2500		G3/2500
BVH	(80°-90°)	139.2	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-G4

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	4178.1	4178.1	4178.1	4178.1	4178.1	4178.1	4178.1	4178.1	4178.1	4178.1	4178.1
2.5°	3696.2	3720.9	3741.9	3761.2	3799.8	3863.5	3936.9	3996.5	4082.5	4099.3	4145.0
5°	3356.8	3356.8	3373.2	3402.6	3455.0	3550.6	3650.5	3783.4	3970.5	4014.5	4136.6
7.5°	3192.0	3193.3	3202.9	3227.7	3273.4	3360.6	3470.1	3627.0	3880.3	3953.7	4161.3
10°	3252.8	3239.0	3218.0	3205.8	3212.6	3263.7	3367.8	3542.2	3825.0	3918.9	4217.1
12.5°	3593.4	3567.4	3495.3	3399.6	3308.2	3270.9	3331.7	3502.0	3801.5	3910.9	4290.5
15°	4150.4	4139.5	4004.9	3806.9	3585.4	3399.6	3358.1	3486.9	3804.0	3920.6	4377.8
17.5°	4848.8	4833.3	4656.3	4368.1	4006.6	3645.0	3450.8	3499.5	3813.6	3936.9	4462.1
20°	5553.9	5506.5	5315.7	4972.1	4507.8	3978.5	3604.7	3531.3	3826.2	3955.0	4551.0
22.5°	6080.3	6041.3	5869.8	5535.9	5001.1	4365.2	3811.1	3586.7	3866.5	4007.8	4660.1
25°	6543.0	6545.5	6375.2	6052.6	5499.8	4775.4	4077.0	3734.8	3968.8	4115.6	4809.8
27.5°	7115.1	7082.0	6922.6	6602.5	5993.1	5189.4	4398.3	3938.6	4121.5	4269.6	5006.5
30°	7799.2	7775.7	7591.6	7228.8	6540.0	5634.0	4765.4	4175.2	4318.2	4471.7	5264.1
32.5°	8604.1	8593.2	8402.0	7935.1	7171.7	6157.9	5196.5	4488.5	4611.8	4771.2	5634.0
35°	9549.2	9550.4	9324.8	8763.5	7863.0	6767.4	5685.2	4891.6	4969.2	5135.3	6074.9
37.5°	10130.9	10201.4	10117.1	9545.0	8645.7	7449.0	6319.8	5426.4	5376.5	5544.3	6547.2
40°	10255.5	10341.5	10608.7	10318.0	9521.5	8199.8	6882.3	5940.2	5878.2	6082.8	7155.4
42.5°	10081.0	10200.2	10765.6	10970.3	10451.0	9125.1	7638.6	6703.6	6624.8	6900.3	7911.6
45°	9977.0	10065.9	10719.8	11310.0	11257.2	10171.2	8601.6	7662.1	7633.1	7994.7	8784.5
47.5°	9797.1	9877.6	10506.3	11388.9	11731.1	11129.6	9758.5	8834.4	8891.1	9365.0	9769.4
50°	9894.0	9927.1	10268.1	11188.0	11868.3	11832.2	11050.8	10191.8	10386.0	10977.4	10884.7
52.5°	9880.1	9966.1	10240.4	10858.3	11886.3	12265.9	12323.8	11706.0	12114.9	12793.6	12121.6
55°	7988.0	8145.7	9914.9	10775.2	11949.7	12690.8	13457.2	13302.0	14063.7	14854.8	13518.0
57.5°	7627.7	7727.5	8708.2	10949.7	12287.7	13502.9	14717.6	15058.6	16332.9	17251.5	15219.3
60°	7556.8	7680.1	8695.6	11163.2	12973.5	14825.8	16586.7	17185.2	19094.1	20100.0	17191.9
62.5°	7336.6	7469.5	8613.8	11135.1	13947.5	16655.9	18979.2	19446.1	21712.3	22690.5	18842.1
65°	6638.6	6763.2	7947.7	10688.0	14604.4	18609.3	21810.5	21518.6	23779.4	24514.7	19664.6
66°	6160.4	6282.5	7422.6	10161.6	14451.7	19163.3	22813.8	22159.9	24242.0	24818.4	19503.9
67.5°	5286.3	5381.9	6402.9	8982.5	13641.3	19318.5	23657.3	22641.8	24290.3	24494.1	18585.8
70°	3340.1	3367.8	4161.3	6200.7	10326.4	16754.0	22373.0	21445.1	22287.4	21735.8	15580.8
72.5°	1449.2	1439.5	1997.8	3154.3	5846.3	11242.1	18097.9	17694.9	17483.0	16225.1	10906.9
75°	806.2	817.5	1037.7	1464.3	2375.8	5522.0	11838.9	11329.3	9565.5	8162.5	4945.7
77.5°	646.8	662.3	860.3	1039.0	1066.7	1925.7	5540.1	4507.8	2713.8	2177.8	1374.1
80°	511.3	539.0	750.8	809.1	718.9	793.6	1789.8	1431.2	1073.8	984.9	712.2
82.5°	404.3	424.1	644.3	612.4	502.9	534.8	857.4	835.5	698.4	635.9	411.5
85°	291.1	326.8	529.3	461.4	329.7	360.3	569.2	545.7	400.2	326.8	181.6
87.5°	119.1	155.2	374.1	306.2	184.1	167.8	284.0	267.2	189.6	138.4	90.2
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°	4178.1	4178.1	4178.1	4178.1	4178.1	4178.1	4178.1	4178.1	4178.1	4178.1	4178.1
2.5°	4173.9	4207.1	4250.3	4276.7	4290.5	4300.2	4315.3	4314.0	4318.2	4319.5	4324.9
5°	4201.6	4257.0	4319.5	4336.3	4336.3	4320.7	4305.6	4280.5	4270.8	4268.3	4270.8
7.5°	4273.8	4334.6	4388.7	4369.4	4327.9	4266.6	4187.8	4118.6	4081.2	4068.7	4066.1
10°	4365.2	4438.6	4460.8	4387.4	4265.4	4118.6	3962.1	3848.4	3783.4	3765.4	3759.9
12.5°	4475.9	4545.1	4514.9	4359.7	4133.7	3897.1	3680.7	3499.5	3363.6	3320.8	3317.8
15°	4598.0	4652.1	4545.1	4273.8	3936.9	3588.0	3202.9	2890.0	2721.0	2666.9	2662.7
17.5°	4711.7	4739.3	4527.1	4124.0	3647.5	3082.5	2571.2	2330.0	2272.2	2286.0	2288.5
20°	4808.6	4808.6	4466.3	3909.3	3192.0	2416.0	2093.0	2089.3	2130.8	2172.3	2180.7
22.5°	4915.1	4851.3	4359.7	3606.0	2546.1	1976.9	1929.9	1968.5	2015.5	2061.2	2068.3
25°	5046.8	4886.2	4211.3	3146.3	2001.6	1795.2	1813.3	1845.2	1868.6	1898.0	1902.2
27.5°	5193.6	4930.2	4016.2	2512.9	1737.4	1682.0	1695.8	1706.7	1703.8	1715.1	1717.6
30°	5369.4	4981.8	3748.6	1964.3	1627.9	1584.7	1559.9	1550.3	1550.3	1568.3	1575.0
32.5°	5605.1	5057.7	3364.8	1683.2	1575.0	1515.5	1435.4	1399.3	1413.1	1473.9	1487.8
35°	5864.3	5139.5	2845.5	1587.6	1564.1	1483.6	1359.0	1292.3	1294.0	1350.6	1368.7
37.5°	6146.6	5243.5	2275.9	1569.6	1588.9	1485.3	1318.7	1227.3	1190.0	1190.0	1197.1
40°	6508.2	5350.1	1842.6	1582.2	1641.7	1501.6	1298.2	1176.1	1070.9	1073.8	1079.2
42.5°	6979.2	5441.5	1609.8	1608.2	1705.5	1523.9	1296.5	1108.2	1016.7	1079.2	1135.9
45°	7503.1	5487.2	1507.1	1632.1	1756.7	1537.7	1274.7	1097.3	1023.9	1209.3	1317.5
47.5°	8105.4	5460.8	1450.5	1640.0	1769.2	1537.7	1249.5	1123.7	1072.1	1400.5	1526.8
50°	8766.5	5384.9	1395.1	1623.7	1765.0	1534.8	1273.0	1149.7	1090.1	1433.7	1520.9
52.5°	9543.7	5321.1	1336.8	1587.6	1735.7	1519.7	1300.7	1138.8	1033.5	1303.6	1364.5
55°	10430.0	5339.2	1271.8	1536.4	1690.0	1490.7	1291.1	1094.3	974.0	1148.5	1185.8
57.5°	11563.4	5553.9	1194.2	1471.4	1627.9	1442.1	1256.7	1073.8	955.9	1041.9	1064.1
60°	12828.0	5927.6	1097.3	1406.0	1550.3	1364.5	1230.2	1083.4	964.3	1033.5	1044.4
62.5°	13756.2	6145.3	1014.2	1310.4	1445.0	1278.5	1197.1	1095.6	986.5	1062.5	1059.9
65°	14008.3	5788.0	910.2	1170.7	1302.4	1188.7	1155.2	1109.4	996.2	1086.0	1073.8
66°	13655.1	5402.9	864.5	1105.7	1230.2	1144.3	1134.6	1108.2	992.0	1088.9	1067.9
67.5°	12797.8	4613.1	785.6	1010.0	1115.3	1078.0	1101.5	1095.6	980.7	1086.0	1057.0
70°	10437.1	3147.5	672.0	841.0	928.2	948.8	1037.7	1051.6	944.6	1037.7	974.0
72.5°	7292.5	1917.3	594.4	652.7	750.8	809.1	950.5	990.3	896.4	906.0	845.2
75°	3524.2	1018.4	539.0	505.9	583.0	676.2	845.2	907.3	820.0	757.9	735.7
77.5°	1098.5	622.0	457.2	407.3	457.2	545.7	706.4	795.3	730.3	634.6	626.2
80°	590.2	457.2	351.9	326.8	361.6	428.3	555.3	663.6	627.5	569.2	508.4
82.5°	389.2	296.6	260.5	253.3	275.6	326.8	412.7	549.9	549.9	487.8	354.9
85°	200.9	181.6	178.7	178.7	192.5	217.7	281.0	424.1	451.7	257.5	213.5
87.5°	99.8	104.0	96.9	101.1	108.2	106.5	134.2	213.5	255.0	156.5	130.0
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)