

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: P301176

Luminaire Tested: **GLNA-AF-07-LED-E1-T3R-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301176
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-07-LED-E1-T3R-7027-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30110.1 lumens
Efficiency: N/A
Efficacy: 102.1 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B3 - U0 - G4

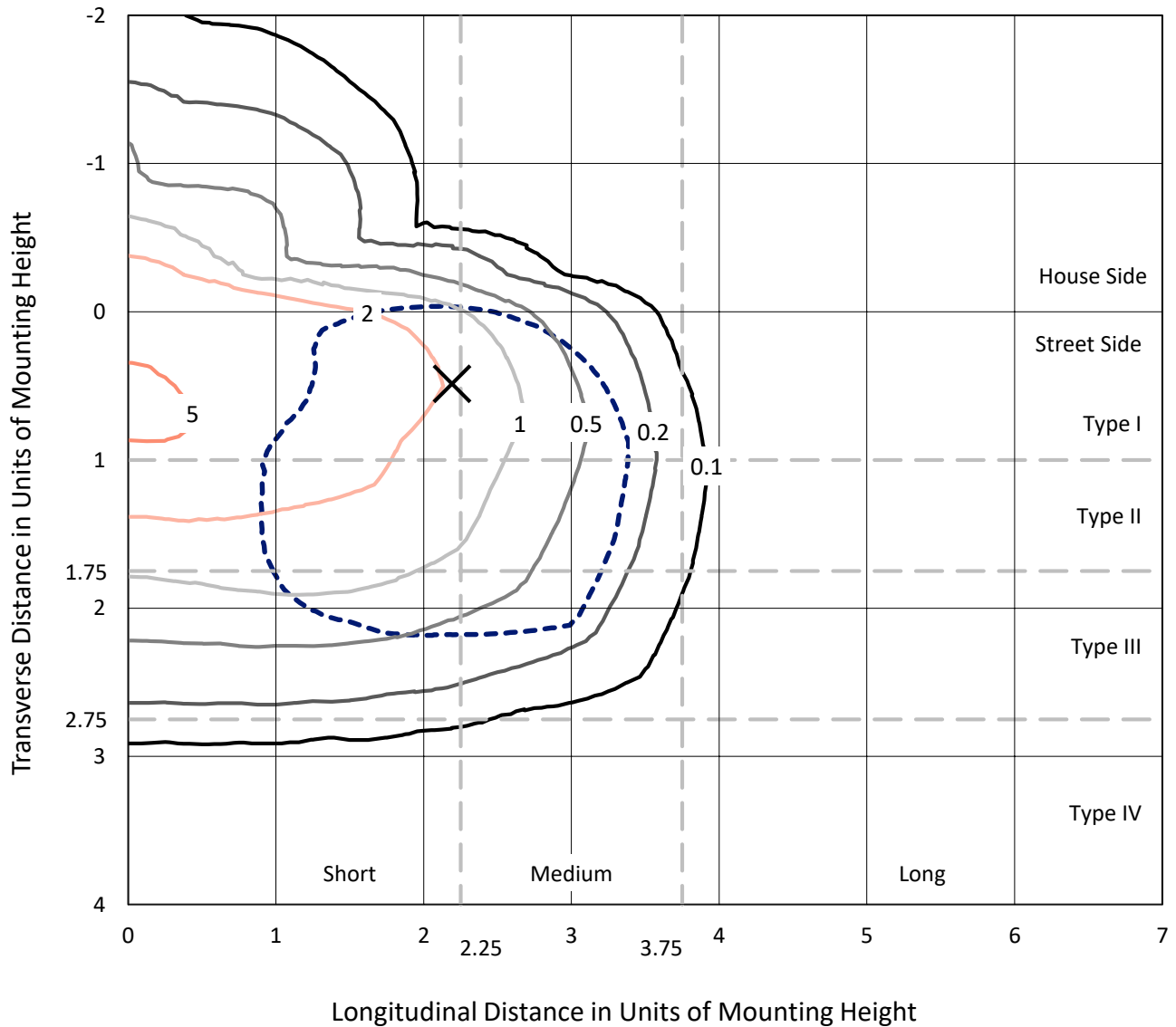
Input Watts (W): 295
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

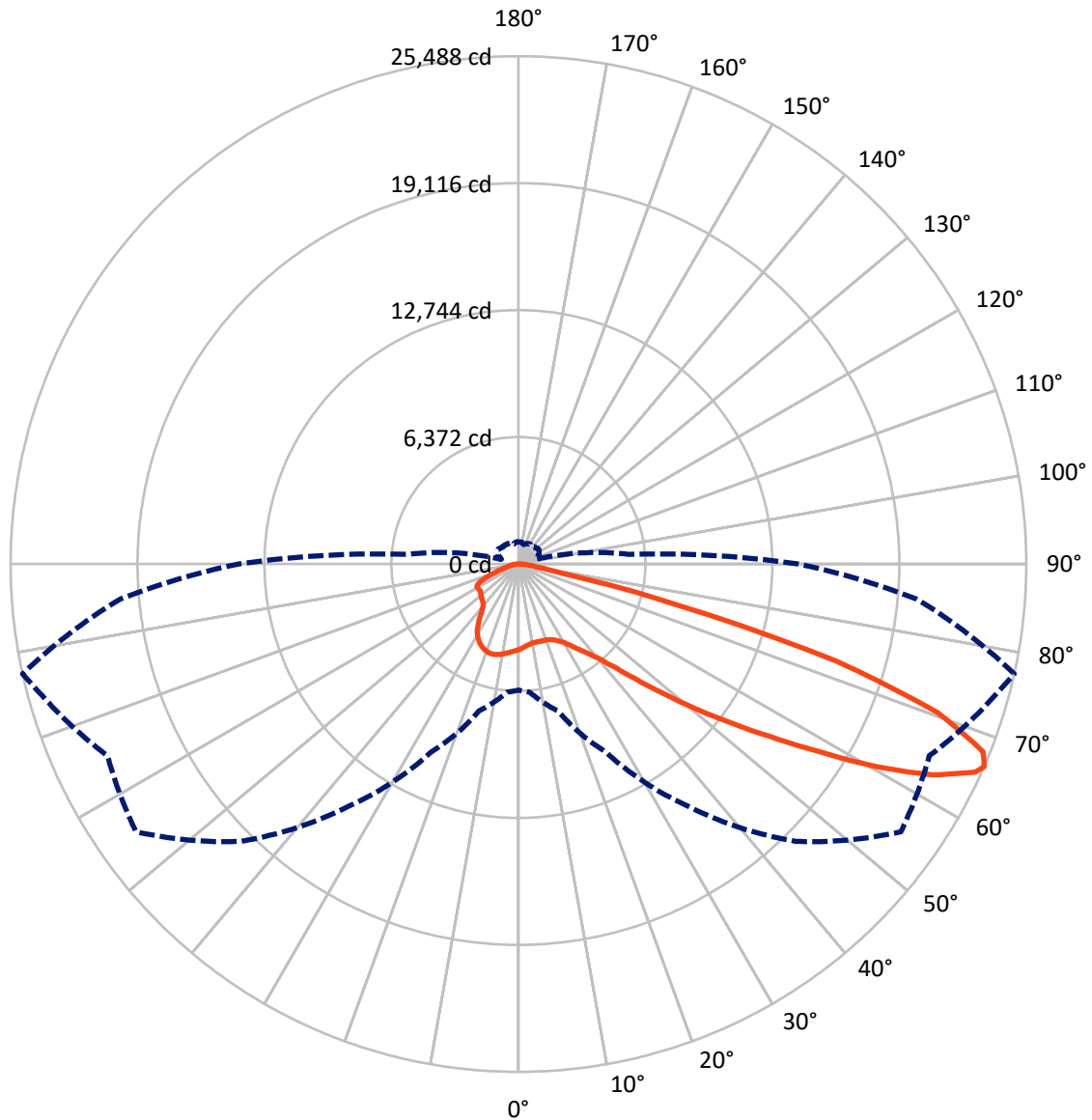
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.9 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	5144.1	0.0	5144.1
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	24965.9	0.0	24965.9
	% Fixture	82.9	0.0	82.9
Total	Lumens	30110.1	0.0	30110.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	383.3	1.3
10°-20°	1081.5	3.6
20°-30°	1845.7	6.1
30°-40°	2954.7	9.8
40°-50°	4564.7	15.2
50°-60°	6474.3	21.5
60°-70°	8660.9	28.8
70°-80°	3761.3	12.5
80°-90°	383.5	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°	30110.1	100.0
0°-180°	30110.1	100.0



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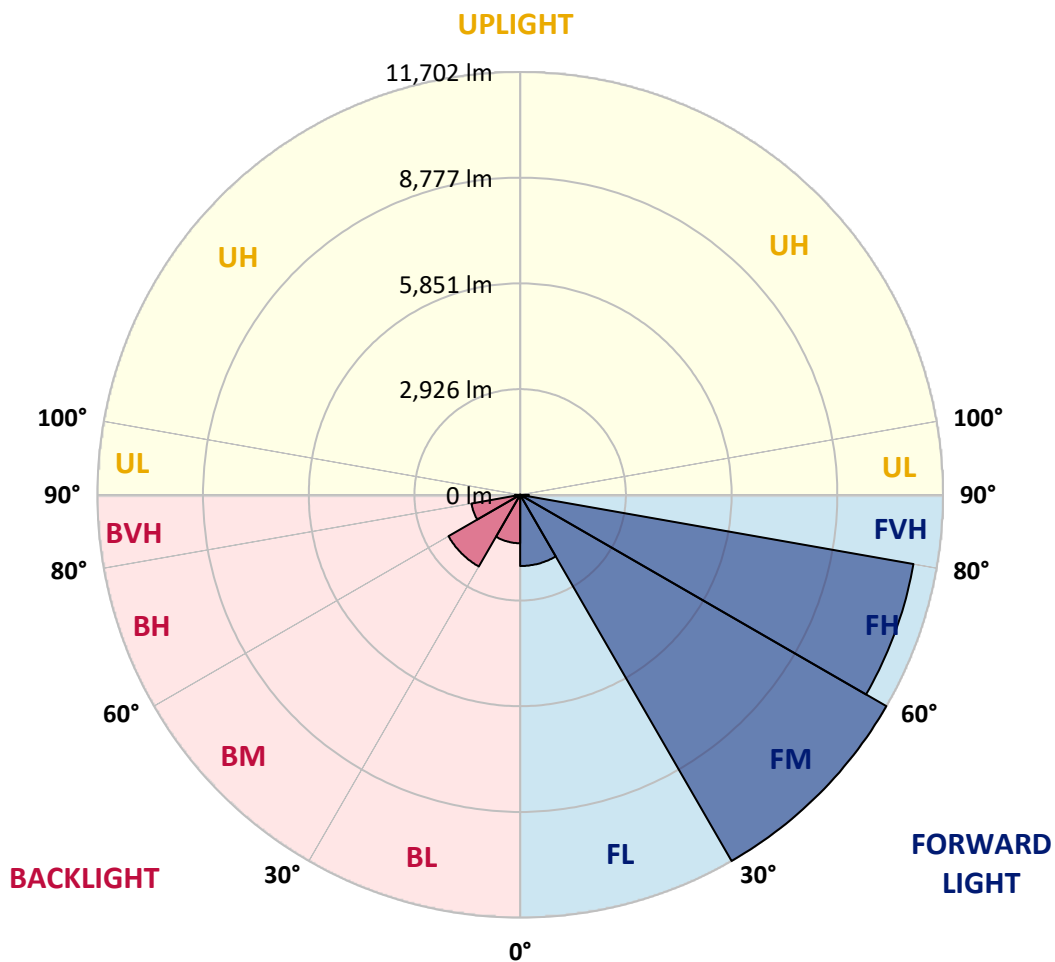
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1970.8	6.5			
FM	(30°-60°)	11702.3	38.9			
FH	(60°-80°)	11052.2	36.7			G4/12000
FVH	(80°-90°)	240.5	0.8			G3/500
BL	(0°-30°)	1339.7	4.4	B3/2500		
BM	(30°-60°)	2291.4	7.6	B2/2500		
BH	(60°-80°)	1370.0	4.5	B3/2500		G3/2500
BVH	(80°-90°)	143.0	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°	4290.8	4290.8	4290.8	4290.8	4290.8	4290.8	4290.8	4290.8	4290.8	4290.8	4290.8
2.5°	3795.8	3821.3	3842.8	3862.6	3902.2	3967.7	4043.1	4104.3	4192.6	4209.8	4256.8
5°	3447.4	3447.4	3464.2	3494.3	3548.2	3646.4	3748.9	3885.4	4077.6	4122.8	4248.1
7.5°	3278.1	3279.4	3289.3	3314.7	3361.6	3451.2	3563.7	3724.8	3984.9	4060.3	4273.6
10°	3340.5	3326.3	3304.8	3292.3	3299.2	3351.7	3458.6	3637.8	3928.1	4024.6	4330.8
12.5°	3690.3	3663.6	3589.5	3491.3	3397.4	3359.1	3421.5	3596.4	3904.0	4016.4	4406.2
15°	4262.4	4251.2	4112.9	3909.6	3682.1	3491.3	3448.7	3580.9	3906.5	4026.3	4495.8
17.5°	4979.6	4963.6	4781.8	4485.9	4114.6	3743.3	3543.8	3593.8	3916.5	4043.1	4582.4
20°	5703.7	5655.0	5459.0	5106.2	4629.4	4085.7	3701.9	3626.6	3929.4	4061.6	4673.7
22.5°	6244.3	6204.2	6028.0	5685.1	5135.9	4482.9	3913.9	3683.4	3970.7	4115.9	4785.7
25°	6719.4	6722.0	6547.1	6215.8	5648.1	4904.2	4187.0	3835.5	4075.8	4226.6	4939.5
27.5°	7307.0	7272.9	7109.2	6780.6	6154.7	5329.3	4516.9	4044.8	4232.6	4384.7	5141.5
30°	8009.5	7985.4	7796.3	7423.7	6716.4	5785.9	4893.8	4287.8	4434.7	4592.3	5406.0
32.5°	8836.1	8824.9	8628.5	8149.1	7365.1	6324.0	5336.7	4609.5	4736.2	4899.9	5785.9
35°	9806.6	9807.9	9576.2	8999.8	8075.0	6949.9	5838.5	5023.5	5103.2	5273.8	6238.7
37.5°	10404.1	10476.5	10389.9	9802.3	8878.8	7649.8	6490.2	5572.7	5521.5	5693.8	6723.7
40°	10532.0	10620.3	10894.7	10596.2	9778.2	8420.9	7067.9	6100.4	6036.6	6246.9	7348.3
42.5°	10352.8	10475.2	11055.8	11266.1	10732.8	9371.1	7844.5	6884.4	6803.4	7086.4	8125.0
45°	10246.0	10337.3	11008.9	11615.0	11560.7	10445.5	8833.6	7868.7	7838.9	8210.3	9021.4
47.5°	10061.2	10143.9	10789.6	11696.0	12047.4	11429.7	10021.6	9072.6	9130.8	9617.5	10032.8
50°	10160.7	10194.8	10545.0	11489.6	12188.3	12151.3	11348.8	10466.6	10666.0	11273.4	11178.2
52.5°	10146.5	10234.8	10516.5	11151.0	12206.8	12596.7	12656.1	12021.6	12441.6	13138.6	12448.5
55°	8203.4	8365.3	10182.3	11065.8	12271.9	13033.0	13820.0	13660.6	14442.9	15255.3	13882.5
57.5°	7833.3	7935.9	8943.0	11244.9	12619.1	13867.0	15114.4	15464.7	16773.3	17716.7	15629.6
60°	7760.5	7887.2	8930.1	11464.2	13323.4	15225.6	17033.9	17648.6	19609.0	20641.9	17655.5
62.5°	7534.4	7670.9	8846.1	11435.3	14323.6	17105.0	19491.0	19970.4	22297.8	23302.3	19350.1
65°	6817.6	6945.5	8162.0	10976.2	14998.1	19111.0	22398.6	22098.8	24420.6	25175.7	20194.8
66°	6326.5	6451.9	7622.7	10435.6	14841.3	19680.1	23428.9	22757.4	24895.7	25487.5	20029.8
67.5°	5428.8	5527.1	6575.5	9224.7	14009.1	19839.4	24295.2	23252.3	24945.2	25154.6	19086.9
70°	3430.1	3458.6	4273.6	6367.9	10604.8	17205.8	22976.2	22023.4	22888.3	22321.9	16000.9
72.5°	1488.3	1478.4	2051.7	3239.3	6003.9	11545.2	18585.9	18172.0	17954.4	16662.6	11201.0
75°	827.9	839.5	1065.7	1503.8	2439.8	5670.9	12158.2	11634.8	9823.4	8382.6	5079.1
77.5°	664.2	680.2	883.5	1067.0	1095.4	1977.6	5689.5	4629.4	2787.0	2236.5	1411.2
80°	525.1	553.5	771.1	830.9	738.3	815.0	1838.0	1469.7	1102.7	1011.4	731.4
82.5°	415.3	435.5	661.6	628.9	516.5	549.2	880.5	858.1	717.2	653.0	422.6
85°	298.9	335.6	543.6	473.8	338.6	370.0	584.5	560.4	410.9	335.6	186.5
87.5°	122.3	159.4	384.2	314.5	189.1	172.3	291.6	274.4	194.7	142.2	92.6
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4290.8	4290.8	4290.8	4290.8	4290.8	4290.8	4290.8	4290.8	4290.8	4290.8	4290.8
2.5°	4286.5	4320.5	4364.9	4392.0	4406.2	4416.1	4431.6	4430.3	4434.7	4435.9	4441.5
5°	4314.9	4371.8	4435.9	4453.2	4453.2	4437.2	4421.7	4395.9	4386.0	4383.4	4386.0
7.5°	4389.0	4451.5	4507.0	4487.2	4444.6	4381.7	4300.7	4229.6	4191.3	4178.4	4175.8
10°	4482.9	4558.3	4581.1	4505.7	4380.4	4229.6	4068.9	3952.2	3885.4	3866.9	3861.3
12.5°	4596.6	4667.7	4636.7	4477.3	4245.1	4002.2	3779.9	3593.8	3454.3	3410.3	3407.3
15°	4722.0	4777.5	4667.7	4389.0	4043.1	3684.7	3289.3	2967.9	2794.3	2738.8	2734.5
17.5°	4838.7	4867.1	4649.2	4235.2	3745.9	3165.6	2640.5	2392.9	2333.4	2347.6	2350.2
20°	4938.2	4938.2	4586.7	4014.7	3278.1	2481.2	2149.5	2145.6	2188.3	2230.9	2239.5
22.5°	5047.6	4982.2	4477.3	3703.2	2614.7	2030.2	1981.9	2021.5	2069.8	2116.7	2124.1
25°	5182.9	5017.9	4324.8	3231.1	2055.6	1843.6	1862.2	1894.9	1919.0	1949.2	1953.5
27.5°	5333.6	5063.1	4124.5	2580.7	1784.2	1727.3	1741.6	1752.8	1749.7	1761.4	1764.0
30°	5514.1	5116.1	3849.7	2017.2	1671.8	1627.4	1602.0	1592.1	1592.1	1610.6	1617.5
32.5°	5756.2	5194.1	3455.5	1728.6	1617.5	1556.3	1474.1	1437.0	1451.2	1513.7	1527.9
35°	6022.4	5278.1	2922.3	1630.4	1606.3	1523.6	1395.7	1327.2	1328.9	1387.0	1405.6
37.5°	6312.3	5384.9	2337.3	1611.9	1631.7	1525.3	1354.3	1260.4	1222.1	1222.1	1229.4
40°	6683.6	5494.3	1892.3	1624.8	1686.0	1542.1	1333.2	1207.8	1099.7	1102.7	1108.3
42.5°	7167.4	5588.2	1653.3	1651.5	1751.5	1564.9	1331.5	1138.1	1044.2	1108.3	1166.5
45°	7705.4	5635.2	1547.7	1676.1	1804.0	1579.2	1309.1	1126.9	1051.5	1241.9	1353.0
47.5°	8324.0	5608.0	1489.6	1684.3	1816.9	1579.2	1283.2	1154.0	1101.0	1438.3	1568.0
50°	9002.8	5530.1	1432.7	1667.5	1812.6	1576.1	1307.4	1180.7	1119.5	1472.3	1561.9
52.5°	9801.0	5464.6	1372.8	1630.4	1782.5	1560.6	1335.8	1169.5	1061.4	1338.8	1401.3
55°	10711.2	5483.1	1306.1	1577.9	1735.5	1530.9	1325.9	1123.8	1000.2	1179.4	1217.8
57.5°	11875.1	5703.7	1226.4	1511.1	1671.8	1480.9	1290.6	1102.7	981.7	1070.0	1092.8
60°	13173.9	6087.5	1126.9	1443.9	1592.1	1401.3	1263.4	1112.6	990.3	1061.4	1072.6
62.5°	14127.2	6311.0	1041.6	1345.7	1484.0	1313.0	1229.4	1125.1	1013.1	1091.1	1088.5
65°	14386.0	5944.0	934.7	1202.2	1337.5	1220.8	1186.3	1139.4	1023.1	1115.2	1102.7
66°	14023.3	5548.6	887.8	1135.5	1263.4	1175.1	1165.2	1138.1	1018.7	1118.2	1096.7
67.5°	13142.9	4737.5	806.8	1037.3	1145.4	1107.0	1131.2	1125.1	1007.1	1115.2	1085.5
70°	10718.6	3232.4	690.1	863.7	953.3	974.4	1065.7	1079.9	970.1	1065.7	1000.2
72.5°	7489.2	1969.0	610.4	670.3	771.1	830.9	976.1	1017.0	920.5	930.4	868.0
75°	3619.2	1045.9	553.5	519.5	598.8	694.4	868.0	931.7	842.1	778.4	755.6
77.5°	1128.2	638.8	469.5	418.3	469.5	560.4	725.4	816.7	750.0	651.7	643.1
80°	606.1	469.5	361.4	335.6	371.3	439.8	570.3	681.5	644.4	584.5	522.1
82.5°	399.7	304.5	267.5	260.2	283.0	335.6	423.9	564.7	564.7	501.0	364.4
85°	206.3	186.5	183.5	183.5	197.7	223.6	288.6	435.5	463.9	264.5	219.3
87.5°	102.5	106.8	99.5	103.8	111.1	109.4	137.8	219.3	261.9	160.7	133.5
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)