

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: P302859

Luminaire Tested: **GLNA-AF-07-LED-E1-T4W-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P302859
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P191569)
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-T4W-7030-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 3000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 32560.5 lumens
Efficiency: N/A
Efficacy: 110.4 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G5

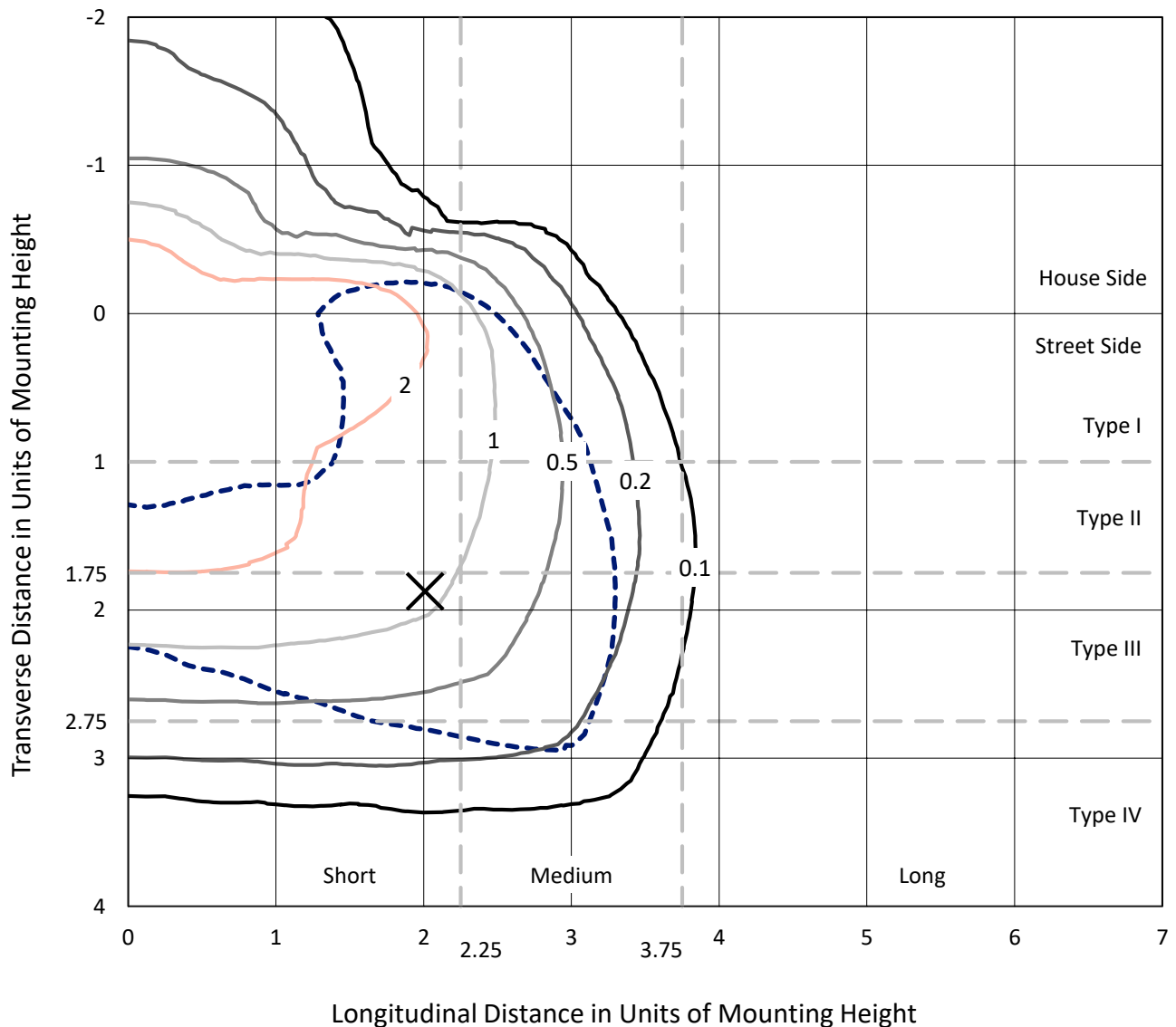
Input Watts (W): 295
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

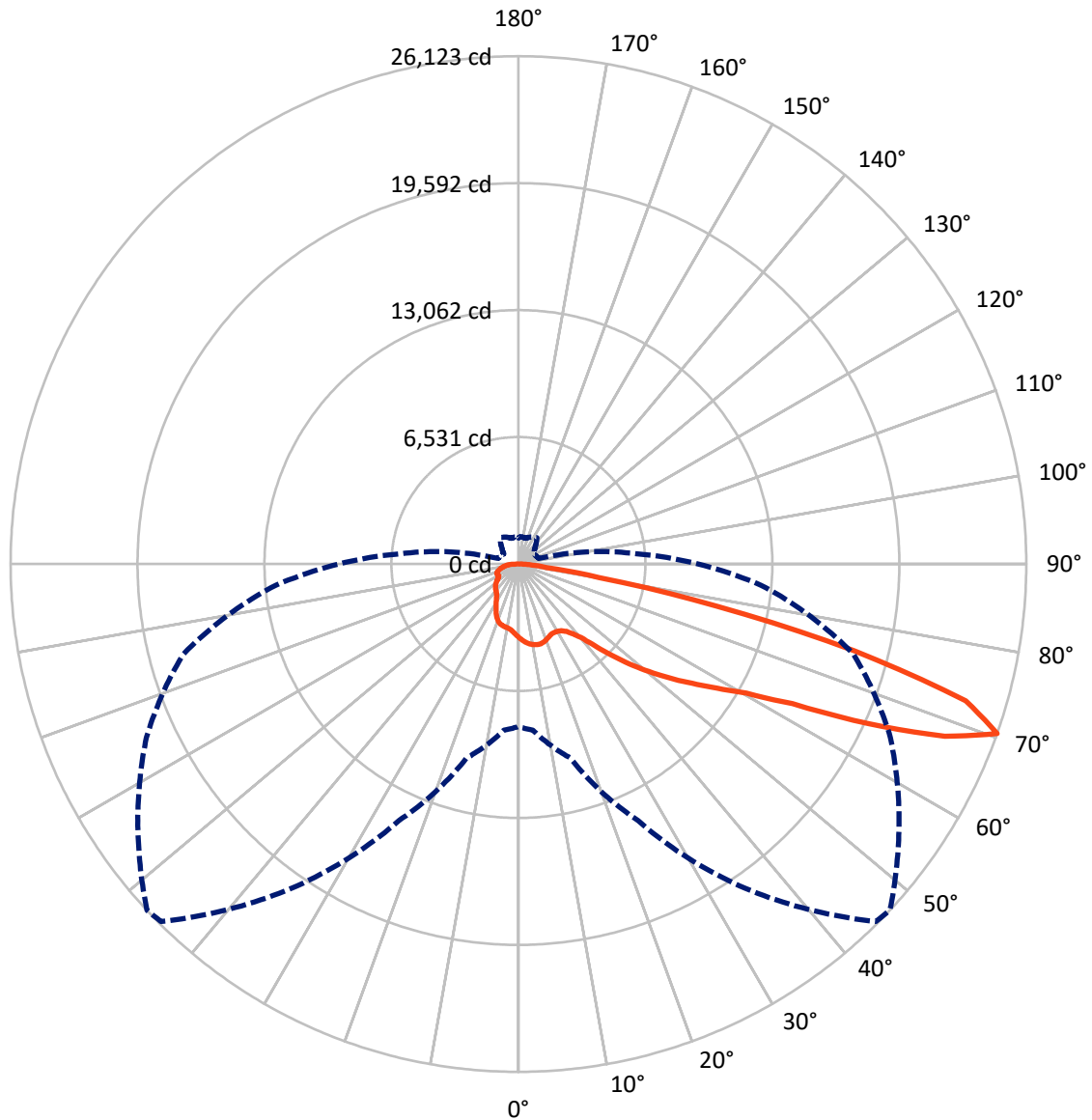
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.8 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6792.8	0.0	6792.8
	% Fixture	20.9	0.0	20.9
Street Side	Lumens	25767.7	0.0	25767.7
	% Fixture	79.1	0.0	79.1
Total	Lumens	32560.5	0.0	32560.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	362.0	1.1
10°-20°	1062.0	3.3
20°-30°	1568.3	4.8
30°-40°	2279.5	7.0
40°-50°	4102.3	12.6
50°-60°	7106.8	21.8
60°-70°	10143.5	31.2
70°-80°	5207.1	16.0
80°-90°	729.0	2.2
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°	32560.5	100.0
0°-180°	32560.5	100.0



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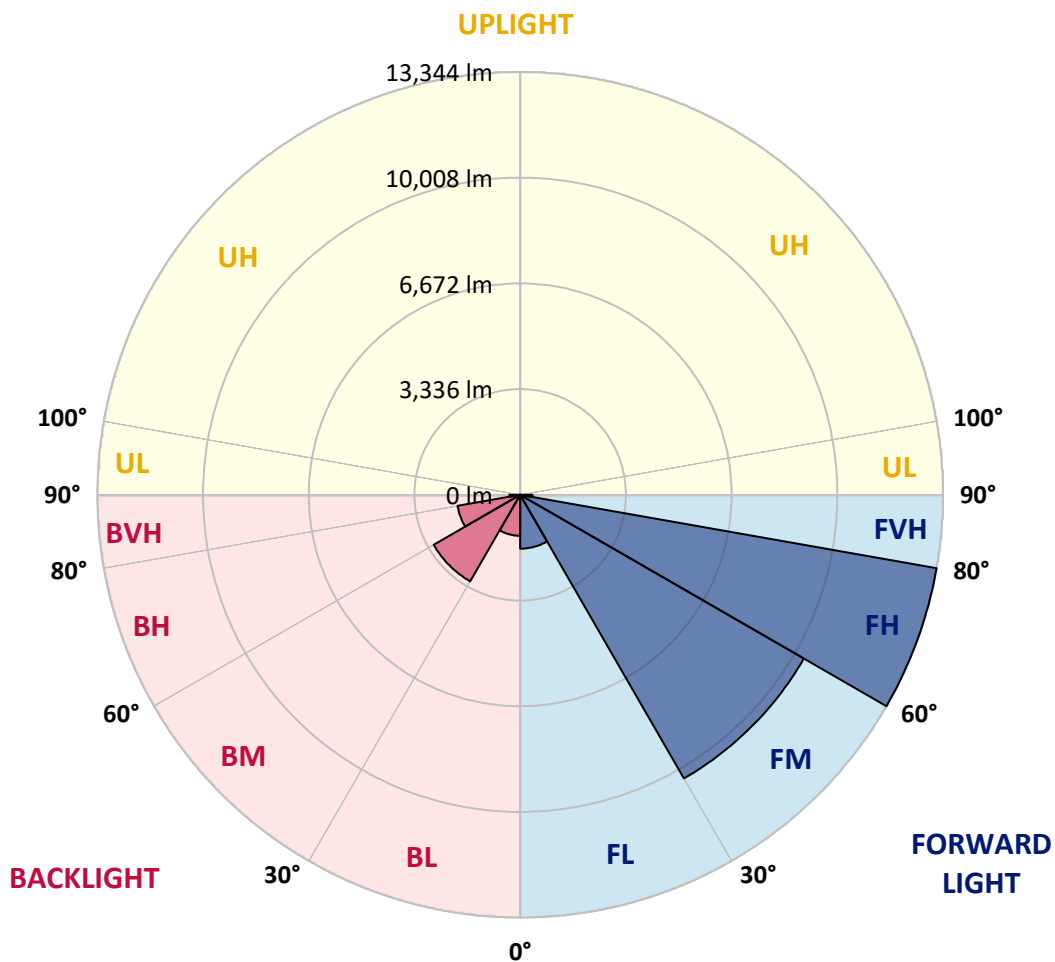
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1698.9	5.2			
FM	(30°-60°)	10335.6	31.7			
FH	(60°-80°)	13344.2	41.0			G5
FVH	(80°-90°)	389.0	1.2			G3/500
BL	(0°-30°)	1293.4	4.0	B3/2500		
BM	(30°-60°)	3153.0	9.7	B3/5000		
BH	(60°-80°)	2006.4	6.2	B3/2500		G3/2500
BVH	(80°-90°)	340.0	1.0			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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	3777.9	3777.9	3777.9	3777.9	3777.9	3777.9	3777.9	3777.9	3777.9	3777.9	3777.9
2.5°	4000.0	3992.1	3988.9	3982.6	3974.7	3934.7	3926.8	3898.4	3859.0	3817.4	3774.8
5°	4263.0	4261.4	4243.5	4212.0	4161.5	4074.1	4053.6	3984.2	3890.5	3800.0	3710.1
7.5°	4494.0	4479.8	4446.6	4383.0	4294.6	4175.7	4147.3	4050.5	3922.1	3798.5	3676.4
10°	4663.4	4655.5	4582.9	4495.5	4379.8	4248.3	4215.1	4107.3	3966.3	3809.5	3657.5
12.5°	4760.2	4744.4	4660.2	4556.0	4418.2	4289.8	4256.2	4147.3	3988.9	3809.5	3630.6
15°	4753.9	4742.8	4658.6	4544.5	4405.6	4293.0	4263.0	4153.6	3984.2	3793.7	3595.9
17.5°	4627.1	4631.8	4560.8	4448.2	4334.0	4248.3	4221.4	4120.4	3952.1	3762.2	3554.9
20°	4405.6	4427.7	4379.8	4280.4	4216.7	4158.3	4141.0	4055.2	3903.2	3716.4	3510.2
22.5°	4183.6	4204.1	4185.1	4101.0	4091.5	4056.8	4047.3	3985.8	3860.5	3688.0	3483.3
25°	4020.5	4039.4	4036.3	3963.1	3992.1	3990.5	3982.6	3952.1	3851.1	3688.0	3488.1
27.5°	3976.3	3982.6	3976.3	3909.5	3948.9	3981.0	3974.7	3969.4	3879.5	3733.8	3548.6
30°	4128.3	4118.9	4069.4	3934.7	3971.5	4015.7	4009.4	4012.6	3964.7	3854.2	3683.2
32.5°	4734.9	4691.8	4536.6	4158.3	4061.5	4085.2	4088.3	4141.0	4148.8	4039.4	3892.1
35°	5642.5	5595.1	5393.6	4757.0	4341.9	4259.9	4259.9	4338.8	4386.1	4305.6	4216.7
37.5°	6604.2	6551.6	6444.2	5587.2	4931.2	4562.4	4554.5	4609.7	4677.6	4697.0	4719.1
40°	7696.9	7641.6	7671.6	6518.4	5753.5	5086.4	4973.8	4934.3	5117.9	5240.0	5417.8
42.5°	8893.2	8867.5	8878.5	7555.9	6689.4	5870.8	5710.8	5506.2	5728.2	5945.0	6317.4
45°	10000.2	10022.3	10011.2	8666.5	7732.1	6827.2	6657.8	6261.7	6479.0	6850.9	7458.0
47.5°	10969.8	10877.7	11020.3	9879.7	8899.6	7898.4	7689.0	7158.7	7378.6	7837.9	8864.3
50°	12146.7	12134.0	11925.2	11499.0	10310.6	8973.7	8699.6	8085.1	8427.1	9065.8	10637.3
52.5°	13384.1	13154.1	12962.6	12758.0	11807.8	10076.4	9740.3	9008.5	9659.8	10462.6	12798.0
55°	13637.1	13534.5	13771.8	14115.9	13250.9	11221.8	10830.3	10166.4	11047.6	12059.9	15289.6
57.5°	14179.0	14177.4	14668.8	15281.7	14736.7	12436.5	12042.0	11565.3	12607.5	13889.1	17934.8
60°	14545.2	14647.7	15560.5	16750.1	16195.5	13840.2	13477.2	13179.4	14382.1	15934.1	20399.6
62.5°	14736.7	14876.1	16121.4	17345.6	18257.9	16176.6	15814.1	15384.8	16729.5	18177.4	21841.1
65°	13940.1	14213.7	16034.0	17860.7	20064.0	19964.0	19800.9	19047.0	19664.7	19949.8	21320.3
67.5°	11734.7	12015.1	14134.8	17380.3	21353.5	23617.3	23652.0	22364.1	21470.8	20101.9	17925.4
70°	8360.8	8580.7	10334.8	14572.0	20371.2	26004.2	26123.1	23892.4	21110.9	17827.0	12523.9
72.5°	3969.4	4104.1	5764.5	9484.1	16165.6	23826.1	24056.0	21941.1	17950.6	13198.3	6832.0
75°	1458.9	1499.9	1948.2	4034.7	9376.2	17570.8	17841.7	15728.4	11899.4	6571.0	2602.6
77.5°	874.4	901.2	1093.2	1703.0	3688.0	10043.3	10443.7	8553.9	5200.5	2445.9	1280.0
80°	611.3	630.3	783.9	1059.6	1742.5	3827.4	4183.6	3491.2	2071.8	1547.8	931.2
82.5°	413.5	423.0	551.4	716.0	1158.0	1366.8	1474.7	1552.5	1397.3	1151.6	590.8
85°	270.9	280.4	374.1	471.9	736.5	706.6	722.3	913.8	1020.1	782.3	327.8
87.5°	155.2	161.5	225.2	252.0	361.4	299.4	302.5	481.4	652.9	527.7	199.4
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°	3777.9	3777.9	3777.9	3777.9	3777.9	3777.9	3777.9	3777.9	3777.9	3777.9	3777.9
2.5°	3763.7	3743.2	3697.4	3668.5	3641.7	3635.4	3624.3	3622.7	3621.2	3621.2	3616.4
5°	3679.6	3644.8	3573.8	3533.8	3500.7	3497.5	3496.0	3503.8	3507.0	3510.2	3505.4
7.5°	3625.9	3578.5	3489.6	3432.8	3393.4	3383.4	3399.7	3436.0	3459.7	3469.1	3464.4
10°	3592.8	3533.8	3431.2	3369.2	3336.0	3331.3	3351.8	3394.9	3443.9	3462.8	3461.2
12.5°	3554.9	3488.1	3378.6	3313.9	3295.0	3304.5	3331.3	3370.7	3421.8	3451.8	3453.3
15°	3516.5	3439.1	3326.5	3269.7	3261.8	3274.5	3299.7	3329.7	3369.2	3399.7	3402.8
17.5°	3470.7	3389.7	3277.6	3218.7	3212.4	3218.7	3220.3	3236.1	3261.8	3290.2	3298.1
20°	3421.8	3339.2	3221.9	3163.5	3135.0	3109.8	3080.9	3084.0	3091.9	3120.8	3127.2
22.5°	3386.5	3304.5	3179.2	3098.2	3022.5	2946.2	2889.4	2881.5	2884.6	2908.3	2916.2
25°	3389.7	3302.9	3168.2	3028.8	2862.5	2740.5	2664.2	2651.6	2650.0	2667.3	2678.9
27.5°	3451.8	3364.4	3209.2	2957.2	2688.4	2507.4	2426.9	2417.4	2404.8	2409.5	2422.2
30°	3589.6	3508.6	3309.2	2884.6	2499.5	2279.6	2195.4	2186.0	2168.6	2160.7	2170.2
32.5°	3814.2	3748.0	3454.9	2814.6	2311.2	2084.4	1999.2	1978.7	1967.6	1958.2	1966.0
35°	4188.3	4159.9	3649.6	2738.9	2144.9	1934.0	1856.6	1825.0	1809.3	1826.6	1839.3
37.5°	4774.4	4790.2	3904.7	2620.0	2016.6	1834.5	1769.3	1733.0	1709.3	1723.5	1737.7
40°	5604.6	5615.6	4186.7	2452.2	1905.5	1775.6	1706.2	1673.0	1639.3	1614.1	1612.5
42.5°	6694.1	6582.1	4464.0	2270.1	1777.2	1739.3	1662.0	1620.4	1569.9	1499.9	1485.7
45°	7986.8	7592.7	4674.4	2060.7	1633.0	1695.1	1612.5	1555.7	1476.2	1400.5	1392.6
47.5°	9476.2	8677.5	4777.5	1844.0	1498.3	1629.9	1552.5	1462.0	1362.1	1324.2	1319.5
50°	11294.4	9965.4	4826.5	1633.0	1381.5	1544.6	1465.2	1358.9	1275.3	1267.4	1262.6
52.5°	13365.1	11514.8	4842.8	1460.5	1284.7	1433.6	1394.2	1291.1	1224.2	1231.1	1231.1
55°	15532.1	13114.7	4627.1	1335.2	1195.8	1319.5	1346.3	1264.2	1208.5	1234.2	1243.7
57.5°	17521.3	14532.5	3948.9	1239.0	1112.2	1232.7	1328.9	1289.5	1251.6	1354.2	1360.5
60°	19048.6	15370.1	2949.3	1151.6	1050.1	1202.1	1375.2	1386.3	1395.8	1640.9	1674.6
62.5°	19368.5	15091.8	2027.6	1083.8	1021.7	1227.9	1458.9	1460.5	1449.4	1620.4	1640.9
65°	17900.1	13328.3	1474.7	1045.4	998.0	1273.7	1530.4	1496.8	1424.2	1554.1	1515.7
67.5°	14215.3	10041.7	1227.9	1017.0	963.3	1270.5	1606.2	1530.4	1410.0	1522.5	1460.5
70°	9227.3	6071.8	1093.2	993.3	921.7	1210.0	1650.4	1527.3	1368.4	1416.3	1343.1
72.5°	4501.9	2715.2	1002.8	958.6	879.1	1126.4	1648.8	1498.3	1325.8	1322.6	1283.2
75°	1761.4	1243.7	920.2	905.9	806.5	1031.2	1604.6	1457.3	1275.3	1224.2	1210.0
77.5°	1031.2	887.0	816.0	828.6	719.2	935.9	1539.9	1386.3	1205.3	1145.3	1129.5
80°	750.7	663.9	695.5	716.0	614.5	841.2	1452.6	1298.9	1128.0	1158.0	1135.9
82.5°	481.4	427.7	564.0	584.5	511.9	744.4	1357.3	1206.9	1018.5	924.9	902.8
85°	245.7	270.9	419.8	445.1	394.6	611.3	1242.1	1085.3	894.9	769.7	782.3
87.5°	137.8	185.2	267.8	299.4	278.8	470.3	1007.5	894.9	730.2	594.0	522.9
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)