

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: P302861

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P302861
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-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 33661.9 lumens
Efficiency: N/A
Efficacy: 114.1 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

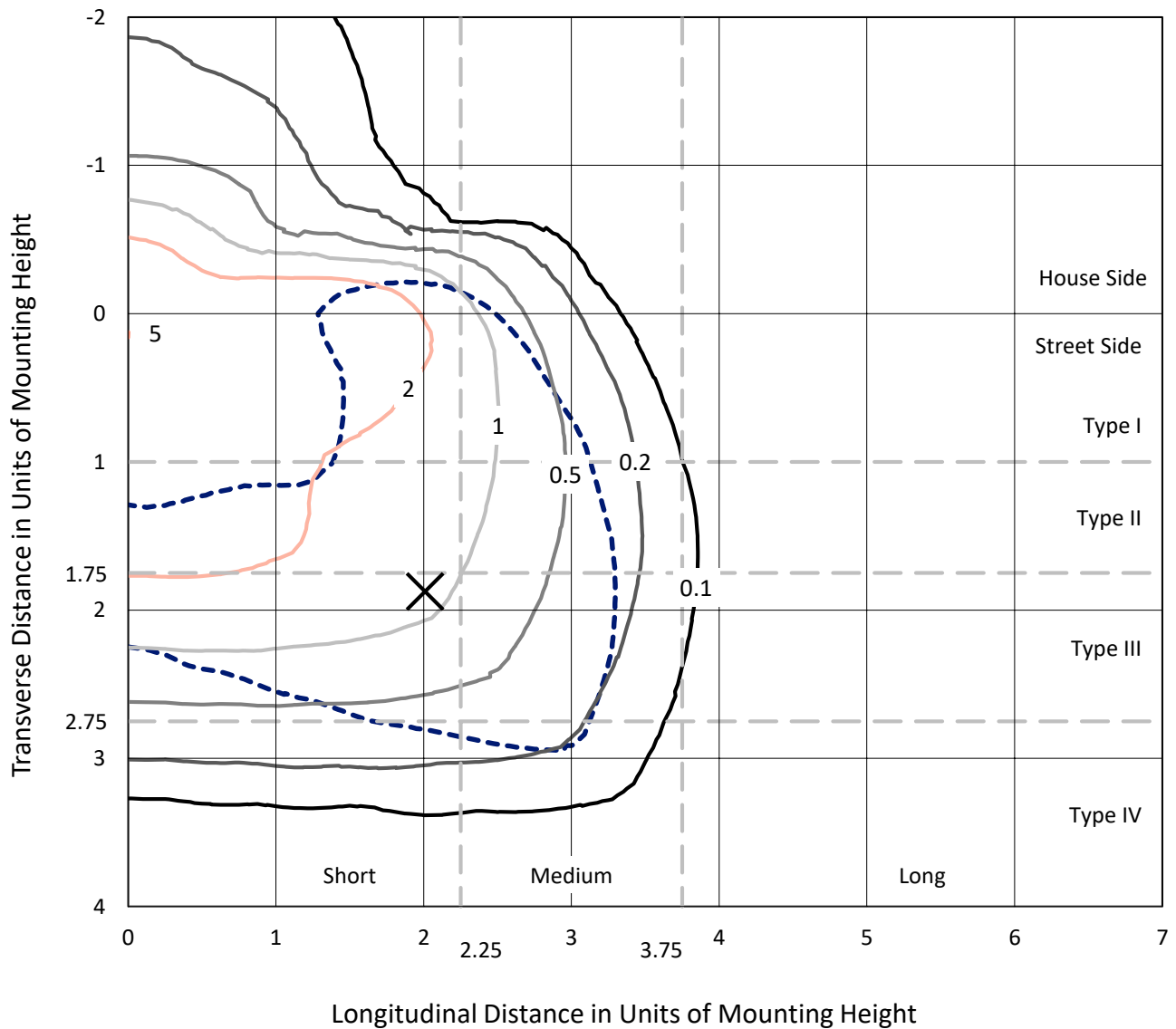
Input Watts (W): 295
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

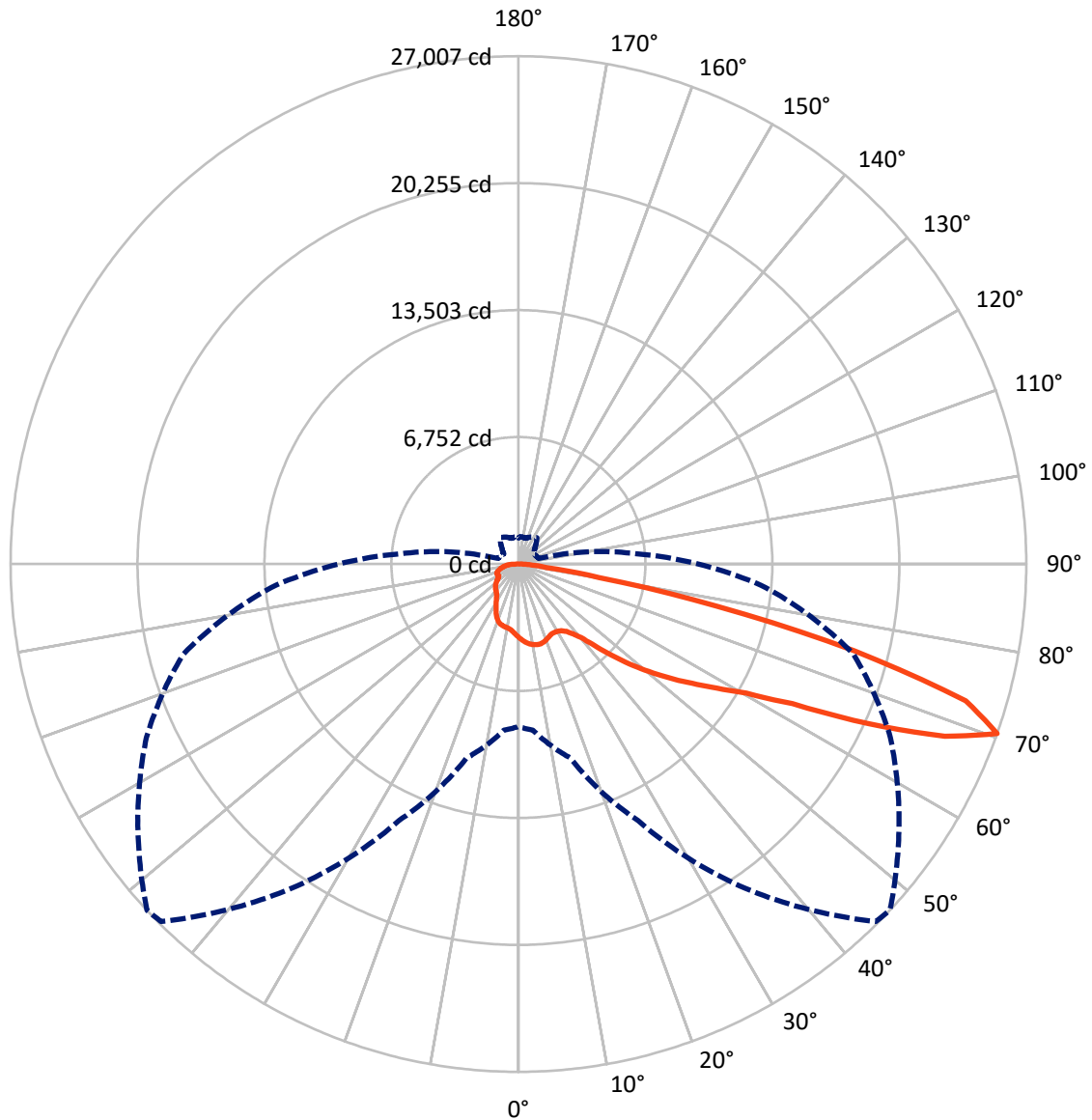
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5 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	7022.5	0.0	7022.5
	% Fixture	20.9	0.0	20.9
Street Side	Lumens	26639.4	0.0	26639.4
	% Fixture	79.1	0.0	79.1
Total	Lumens	33661.9	0.0	33661.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	374.2	1.1
10°-20°	1097.9	3.3
20°-30°	1621.4	4.8
30°-40°	2356.6	7.0
40°-50°	4241.1	12.6
50°-60°	7347.2	21.8
60°-70°	10486.6	31.2
70°-80°	5383.2	16.0
80°-90°	753.7	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°	33661.9	100.0
0°-180°	33661.9	100.0



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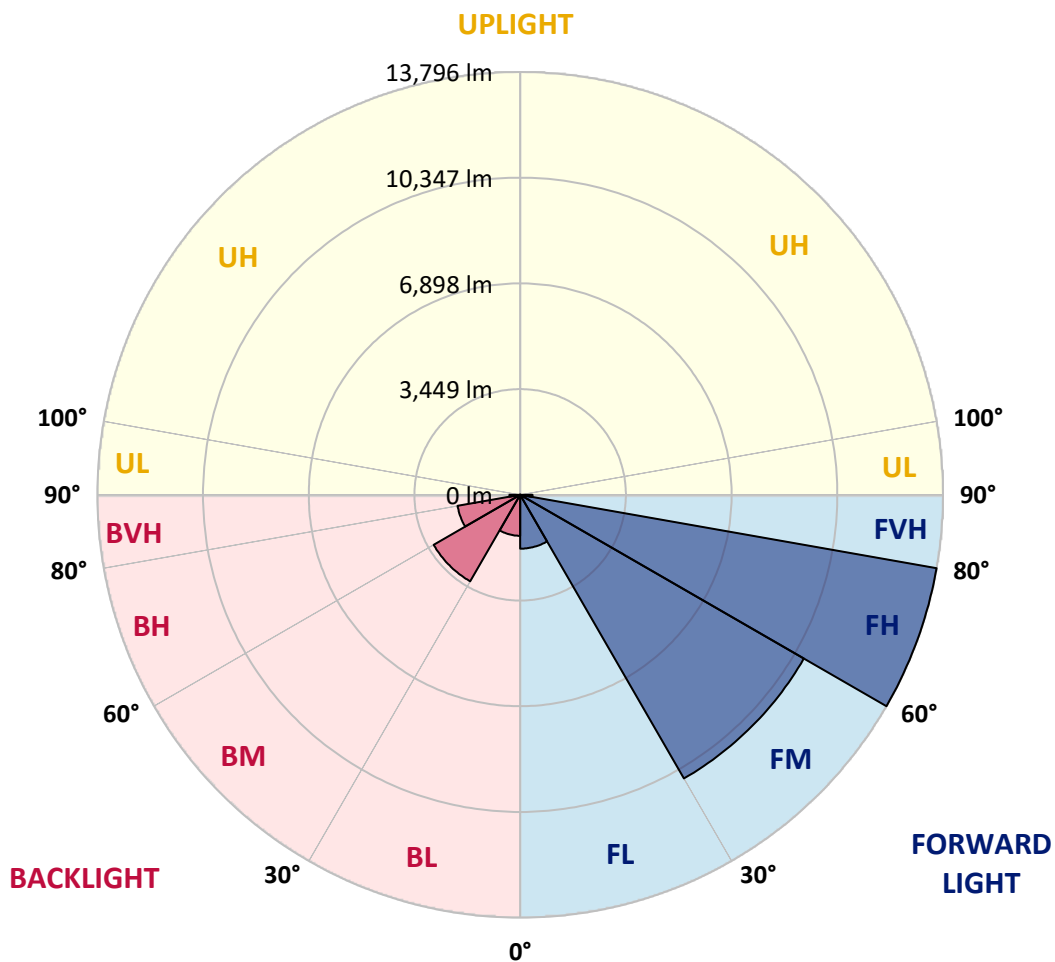
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1756.4	5.2			
FM	(30°-60°)	10685.2	31.7			
FH	(60°-80°)	13795.6	41.0			G5
FVH	(80°-90°)	402.2	1.2			G3/500
BL	(0°-30°)	1337.1	4.0	B3/2500		
BM	(30°-60°)	3259.7	9.7	B3/5000		
BH	(60°-80°)	2074.3	6.2	B3/2500		G3/2500
BVH	(80°-90°)	351.5	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°	3905.7	3905.7	3905.7	3905.7	3905.7	3905.7	3905.7	3905.7	3905.7	3905.7	3905.7
2.5°	4135.3	4127.1	4123.8	4117.3	4109.2	4067.8	4059.7	4030.3	3989.5	3946.5	3902.5
5°	4407.2	4405.6	4387.1	4354.5	4302.2	4212.0	4190.7	4118.9	4022.1	3928.6	3835.6
7.5°	4646.0	4631.3	4597.0	4531.2	4439.9	4316.9	4287.6	4187.5	4054.8	3927.0	3800.8
10°	4821.1	4813.0	4737.9	4647.6	4528.0	4392.0	4357.7	4246.2	4100.5	3938.4	3781.2
12.5°	4921.2	4904.9	4817.9	4710.2	4567.7	4435.0	4400.1	4287.6	4123.8	3938.4	3753.4
15°	4914.7	4903.3	4816.2	4698.2	4554.6	4438.2	4407.2	4294.1	4118.9	3922.1	3717.6
17.5°	4783.6	4788.5	4715.1	4598.7	4480.6	4392.0	4364.2	4259.8	4085.8	3889.4	3675.1
20°	4554.6	4577.5	4528.0	4425.2	4359.4	4299.0	4281.0	4192.4	4035.2	3842.1	3628.9
22.5°	4325.1	4346.3	4326.7	4239.7	4229.9	4194.0	4184.2	4120.6	3991.1	3812.7	3601.2
25°	4156.5	4176.1	4172.8	4097.2	4127.1	4125.5	4117.3	4085.8	3981.3	3812.7	3606.1
27.5°	4110.8	4117.3	4110.8	4041.7	4082.5	4115.7	4109.2	4103.7	4010.7	3860.1	3668.6
30°	4268.0	4258.2	4207.1	4067.8	4105.9	4151.6	4145.1	4148.3	4098.8	3984.6	3807.8
32.5°	4895.1	4850.5	4690.0	4299.0	4198.9	4223.4	4226.6	4281.0	4289.2	4176.1	4023.8
35°	5833.3	5784.4	5576.1	4917.9	4488.8	4404.0	4404.0	4485.5	4534.5	4451.3	4359.4
37.5°	6827.6	6773.2	6662.2	5776.2	5098.0	4716.7	4708.5	4765.6	4835.8	4855.9	4878.8
40°	7957.2	7900.1	7931.1	6738.9	5948.1	5258.4	5142.0	5101.2	5291.1	5417.2	5601.1
42.5°	9194.1	9167.4	9178.8	7811.5	6915.7	6069.4	5904.0	5692.5	5922.0	6146.1	6531.1
45°	10338.4	10361.3	10349.9	8959.7	7993.7	7058.2	6883.0	6473.5	6698.1	7082.7	7710.3
47.5°	11340.8	11245.7	11393.1	10213.9	9200.6	8165.6	7949.1	7400.8	7628.2	8103.0	9164.2
50°	12557.5	12544.5	12328.6	11888.0	10659.3	9277.3	8993.9	8358.6	8712.2	9372.5	10997.1
52.5°	13836.8	13599.1	13401.1	13189.6	12207.3	10417.3	10069.8	9313.2	9986.5	10816.5	13230.9
55°	14098.4	13992.4	14237.7	14593.4	13699.2	11601.4	11196.7	10510.3	11421.3	12467.8	15806.8
57.5°	14658.6	14657.0	15165.0	15798.6	15235.2	12857.2	12449.3	11956.5	13034.0	14358.9	18541.5
60°	15037.2	15143.2	16086.9	17316.7	16743.4	14308.4	13933.1	13625.2	14868.6	16473.1	21089.7
62.5°	15235.2	15379.3	16666.7	17932.4	18875.5	16723.8	16349.1	15905.2	17295.5	18792.3	22580.0
65°	14411.7	14694.5	16576.4	18464.8	20742.7	20639.3	20470.7	19691.3	20329.9	20624.7	22041.5
67.5°	12131.7	12421.6	14612.9	17968.3	22075.8	24416.2	24452.1	23120.6	22197.1	20781.9	18531.7
70°	8643.6	8871.0	10684.4	15064.9	21060.3	26883.9	27006.8	24700.6	21825.1	18430.0	12947.5
72.5°	4103.7	4243.0	5959.5	9804.9	16712.4	24632.1	24869.8	22683.3	18557.8	13644.8	7063.1
75°	1508.2	1550.7	2014.1	4171.2	9693.4	18165.2	18445.3	16260.4	12301.9	6793.3	2690.7
77.5°	904.0	931.7	1130.2	1760.6	3812.7	10383.0	10796.9	8843.3	5376.4	2528.6	1323.3
80°	632.0	651.6	810.4	1095.4	1801.4	3956.9	4325.1	3609.3	2141.9	1600.2	962.7
82.5°	427.5	437.3	570.0	740.2	1197.1	1413.1	1524.5	1605.0	1444.6	1190.6	610.8
85°	280.1	289.9	386.7	487.9	761.5	730.5	746.8	944.8	1054.6	808.8	338.8
87.5°	160.5	167.0	232.8	260.5	373.7	309.5	312.7	497.7	675.0	545.5	206.1
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°	3905.7	3905.7	3905.7	3905.7	3905.7	3905.7	3905.7	3905.7	3905.7	3905.7	3905.7
2.5°	3891.1	3869.8	3822.5	3792.6	3764.9	3758.3	3746.9	3745.3	3743.7	3743.7	3738.8
5°	3804.0	3768.1	3694.7	3653.4	3619.1	3615.8	3614.2	3622.4	3625.6	3628.9	3624.0
7.5°	3748.6	3699.6	3607.7	3548.9	3508.2	3497.8	3514.7	3552.2	3576.7	3586.5	3581.6
10°	3714.3	3653.4	3547.3	3483.1	3448.9	3444.0	3465.2	3509.8	3560.4	3579.9	3578.3
12.5°	3675.1	3606.1	3492.9	3426.0	3406.4	3416.2	3444.0	3484.8	3537.5	3568.5	3570.2
15°	3635.4	3555.5	3439.1	3380.3	3372.2	3385.2	3411.3	3442.3	3483.1	3514.7	3517.9
17.5°	3588.1	3504.3	3388.5	3327.6	3321.0	3327.6	3329.2	3345.5	3372.2	3401.5	3409.7
20°	3537.5	3452.1	3330.8	3270.5	3241.1	3215.0	3185.1	3188.3	3196.5	3226.4	3232.9
22.5°	3501.1	3416.2	3286.8	3203.0	3124.7	3045.8	2987.1	2978.9	2982.2	3006.7	3014.8
25°	3504.3	3414.6	3275.4	3131.2	2959.4	2833.2	2754.3	2741.3	2739.6	2757.6	2769.5
27.5°	3568.5	3478.2	3317.8	3057.3	2779.3	2592.2	2509.0	2499.2	2486.2	2491.1	2504.1
30°	3711.0	3627.3	3421.1	2982.2	2584.1	2356.7	2269.7	2259.9	2242.0	2233.8	2243.6
32.5°	3943.3	3874.7	3571.8	2909.9	2389.3	2154.9	2066.8	2045.6	2034.2	2024.4	2032.6
35°	4330.0	4300.6	3773.0	2831.5	2217.5	1999.4	1919.4	1886.8	1870.5	1888.4	1901.5
37.5°	4935.9	4952.2	4036.8	2708.6	2084.8	1896.6	1829.1	1791.6	1767.1	1781.8	1796.5
40°	5794.2	5805.6	4328.4	2535.1	1970.0	1835.7	1763.9	1729.6	1694.8	1668.7	1667.1
42.5°	6920.6	6804.7	4615.0	2346.9	1837.3	1798.1	1718.2	1675.2	1623.0	1550.7	1536.0
45°	8256.9	7849.6	4832.5	2130.5	1688.3	1752.4	1667.1	1608.3	1526.2	1447.9	1439.7
47.5°	9796.7	8971.1	4939.2	1906.4	1549.0	1685.0	1605.0	1511.5	1408.2	1369.0	1364.1
50°	11676.4	10302.5	4989.7	1688.3	1428.3	1596.9	1514.8	1404.9	1318.4	1310.3	1305.4
52.5°	13817.2	11904.3	5006.6	1509.9	1328.2	1482.1	1441.3	1334.7	1265.7	1272.7	1272.7
55°	16057.5	13558.3	4783.6	1380.4	1236.3	1364.1	1391.8	1307.0	1249.3	1276.0	1285.8
57.5°	18114.0	15024.1	4082.5	1280.9	1149.8	1274.4	1373.9	1333.1	1293.9	1400.0	1406.5
60°	19693.0	15890.0	3049.1	1190.6	1085.6	1242.8	1421.8	1433.2	1443.0	1696.4	1731.2
62.5°	20023.7	15602.3	2096.2	1120.4	1056.3	1269.5	1508.2	1509.9	1498.4	1675.2	1696.4
65°	18505.6	13779.1	1524.5	1080.7	1031.8	1316.8	1582.2	1547.4	1472.3	1606.7	1567.0
67.5°	14696.2	10381.4	1269.5	1051.4	995.9	1313.5	1660.5	1582.2	1457.7	1574.0	1509.9
70°	9539.5	6277.1	1130.2	1026.9	952.9	1251.0	1706.2	1578.9	1414.7	1464.2	1388.6
72.5°	4654.1	2807.1	1036.7	991.0	908.9	1164.5	1704.6	1549.0	1370.6	1367.4	1326.6
75°	1821.0	1285.8	951.3	936.6	833.8	1066.0	1658.9	1506.6	1318.4	1265.7	1251.0
77.5°	1066.0	917.0	843.6	856.6	743.5	967.6	1592.0	1433.2	1246.1	1184.1	1167.8
80°	776.1	686.4	719.0	740.2	635.3	869.7	1501.7	1342.9	1166.1	1197.1	1174.3
82.5°	497.7	442.2	583.1	604.3	529.2	769.6	1403.3	1247.7	1053.0	956.2	933.3
85°	254.0	280.1	434.0	460.1	407.9	632.0	1284.1	1122.1	925.2	795.7	808.8
87.5°	142.5	191.5	276.8	309.5	288.3	486.2	1041.6	925.2	754.9	614.1	540.6
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)