

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: P299251

Luminaire Tested: **GLNA-AF-07-LED-E1-SL2-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299251
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24286)
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-SL2-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Narrow OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23525.7 lumens
Efficiency: N/A
Efficacy: 104.1 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G4

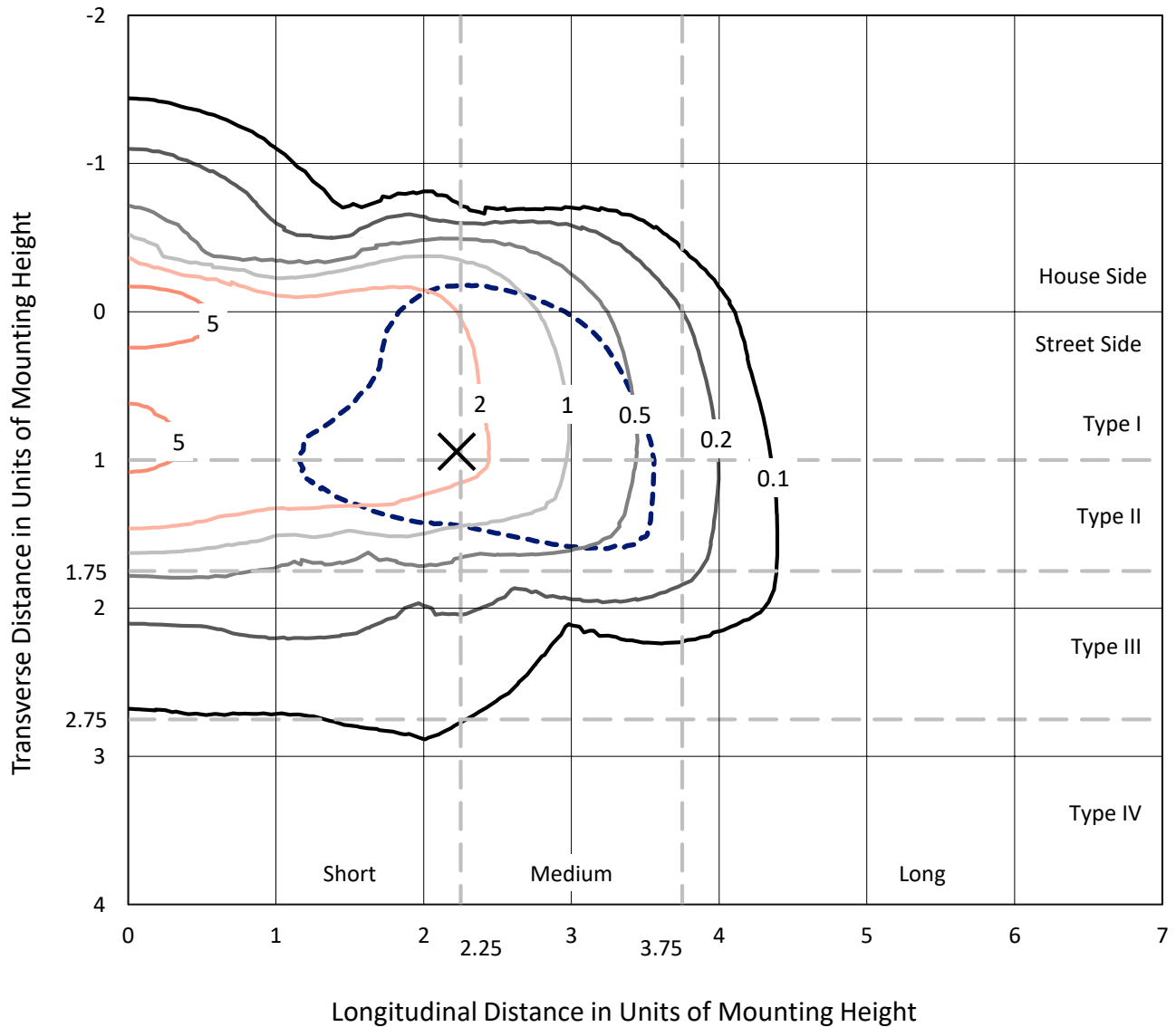
Input Watts (W): 226
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

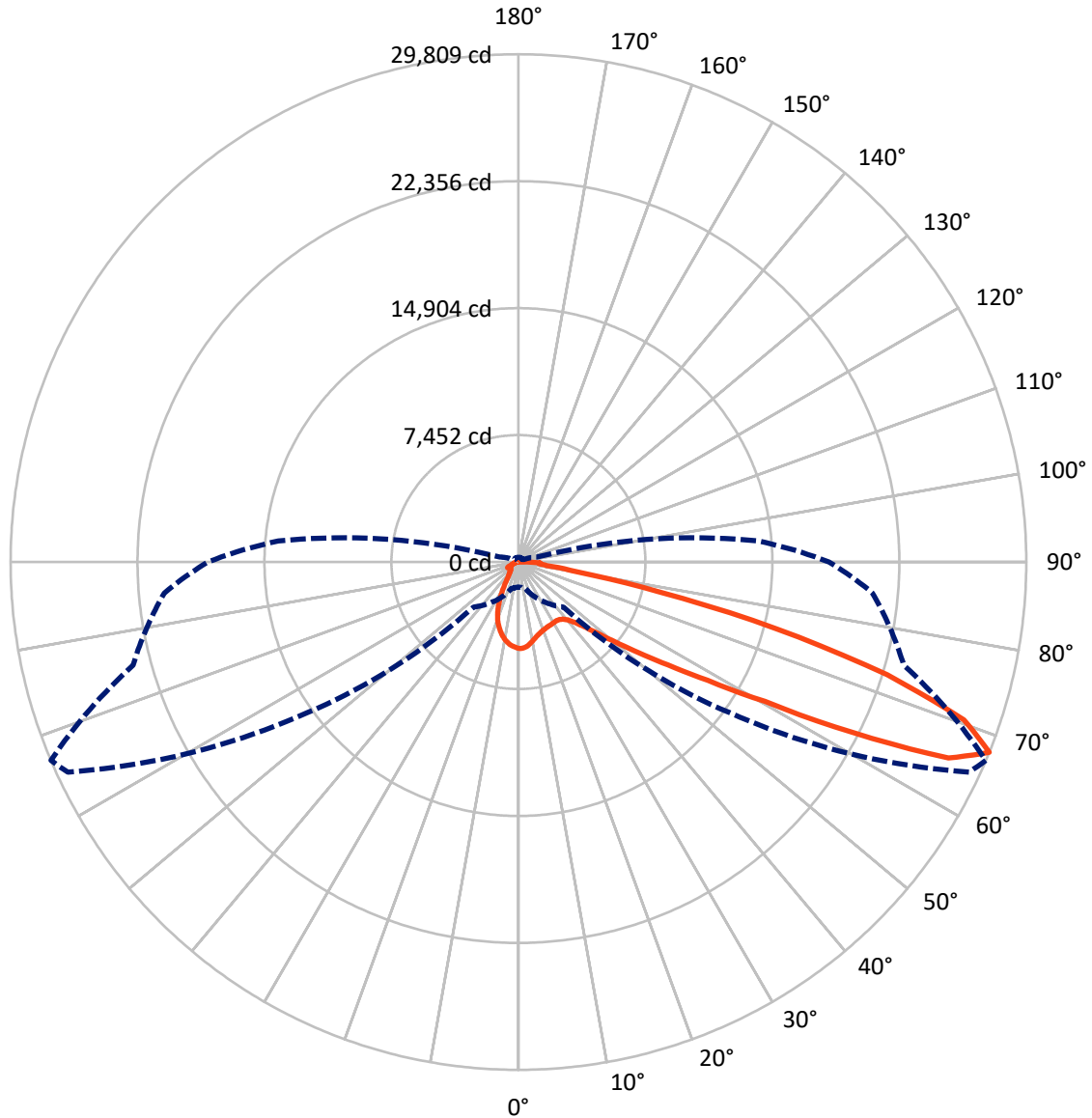
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.1 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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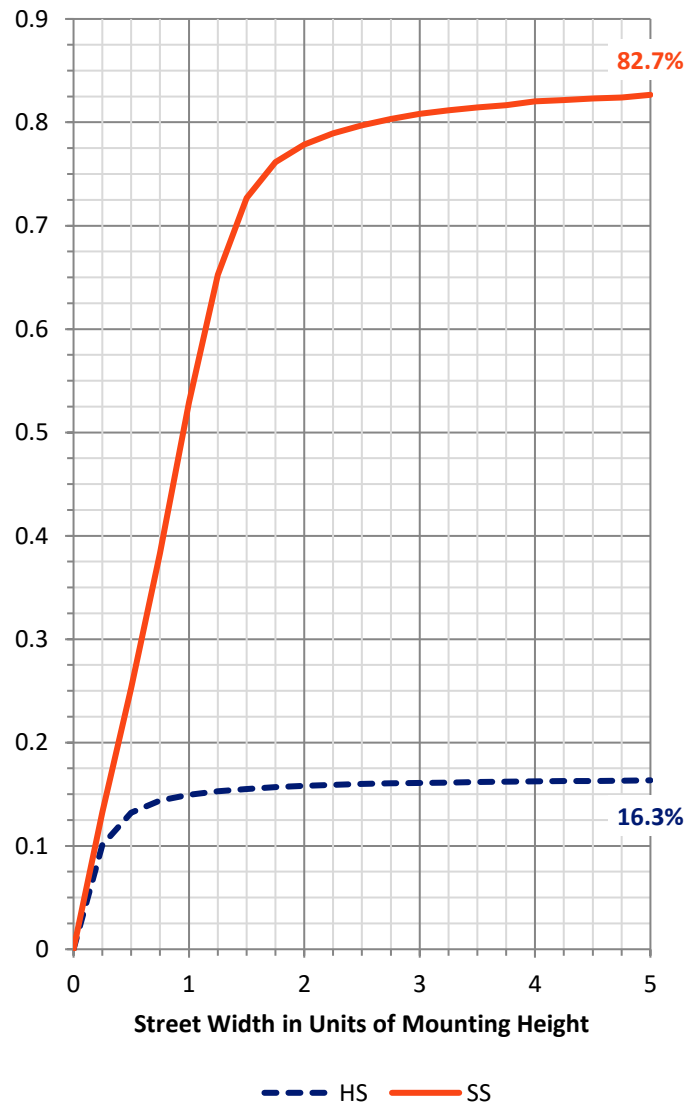
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3897.9	0.0	3897.9
	% Fixture	16.6	0.0	16.6
Street Side	Lumens	19627.7	0.0	19627.7
	% Fixture	83.4	0.0	83.4
Total	Lumens	23525.7	0.0	23525.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	432.9	1.8
10°-20°	1001.7	4.3
20°-30°	1357.8	5.8
30°-40°	1930.3	8.2
40°-50°	3229.5	13.7
50°-60°	5109.1	21.7
60°-70°	6508.4	27.7
70°-80°	3409.1	14.5
80°-90°	546.8	2.3
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°	23525.7	100.0
0°-180°	23525.7	100.0



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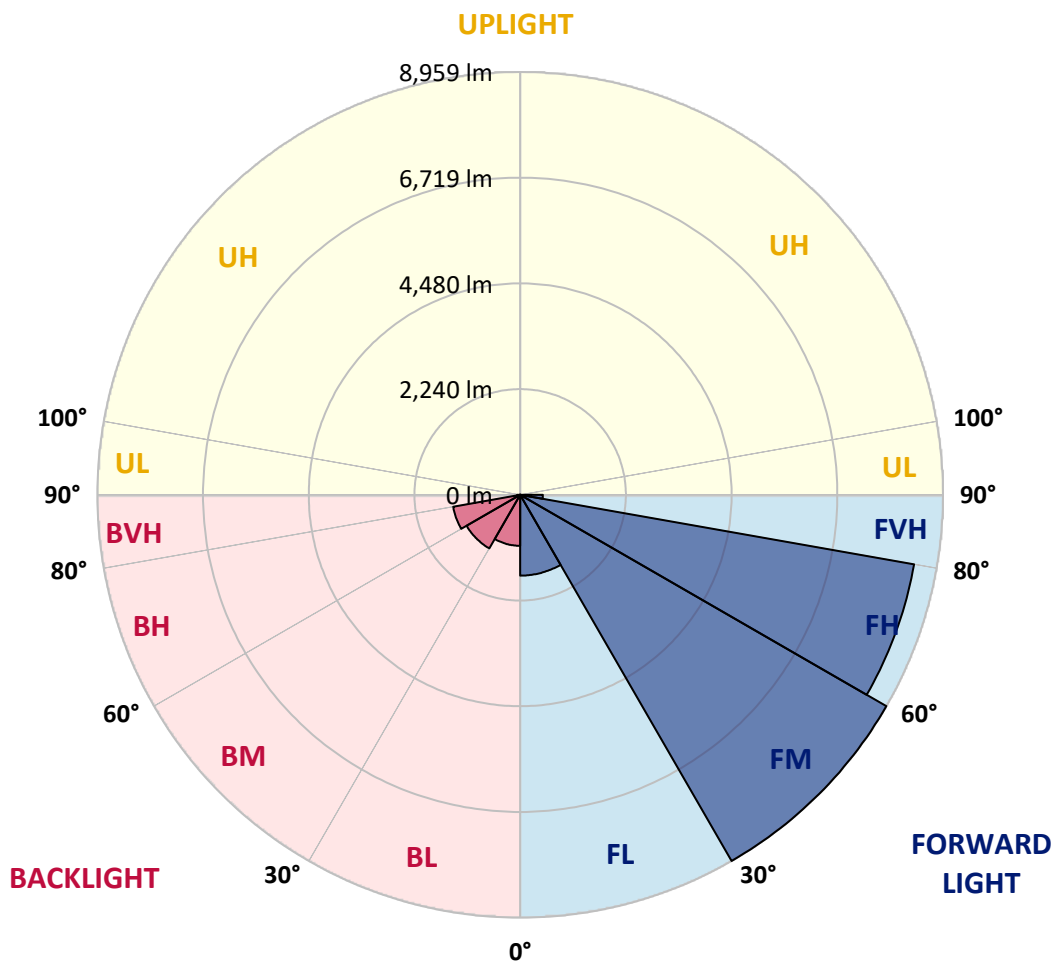
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1712.1	7.3			
FM	(30°-60°)	8959.1	38.1			
FH	(60°-80°)	8475.8	36.0			G4/12000
FVH	(80°-90°)	480.8	2.0			G3/500
BL	(0°-30°)	1080.4	4.6	B3/2500		
BM	(30°-60°)	1309.8	5.6	B2/2500		
BH	(60°-80°)	1441.7	6.1	B3/2500		G3/2500
BVH	(80°-90°)	66.0	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	5074.4	5074.4	5074.4	5074.4	5074.4	5074.4	5074.4	5074.4	5074.4	5074.4	5074.4
2.5°	4865.6	4873.7	4899.2	4915.5	4988.6	5019.9	5041.9	5064.0	5067.5	5077.9	5067.5
5°	4355.1	4372.5	4420.1	4473.5	4615.0	4726.4	4843.6	4965.4	4987.4	5066.3	5088.4
7.5°	3959.5	3954.9	3994.3	4058.2	4203.2	4357.5	4562.8	4805.3	4852.8	5030.3	5116.2
10°	3670.7	3667.2	3709.0	3775.1	3913.1	4059.3	4291.3	4623.1	4690.4	4973.5	5142.9
12.5°	3457.2	3458.4	3500.1	3573.2	3713.6	3860.9	4096.4	4446.8	4532.6	4907.4	5170.7
15°	3315.7	3324.9	3358.6	3436.3	3573.2	3720.6	3951.4	4314.5	4410.8	4855.2	5202.0
17.5°	3268.1	3283.2	3294.8	3351.6	3468.8	3616.1	3842.4	4217.1	4319.2	4819.2	5229.9
20°	3312.2	3329.6	3307.5	3327.3	3401.5	3531.5	3756.5	4140.5	4244.9	4778.6	5233.4
22.5°	3501.3	3517.5	3452.6	3395.7	3391.1	3470.0	3685.7	4080.2	4188.1	4748.4	5234.5
25°	3834.2	3844.7	3735.6	3603.4	3474.6	3447.9	3635.9	4038.4	4153.3	4721.7	5212.5
27.5°	4242.6	4250.7	4125.4	3930.5	3671.8	3500.1	3618.5	4014.1	4133.6	4698.5	5175.4
30°	4739.2	4777.4	4609.2	4363.3	3986.2	3654.4	3653.3	4001.3	4111.5	4659.1	5102.3
32.5°	5247.3	5263.5	5147.5	4898.1	4409.7	3925.9	3750.7	4010.6	4105.7	4611.5	5009.5
35°	5762.4	5783.3	5707.9	5507.2	4988.6	4323.8	3941.0	4065.1	4141.7	4595.3	4944.5
37.5°	6429.5	6457.3	6352.9	6120.9	5692.8	4863.3	4257.7	4202.0	4251.9	4641.7	4924.8
40°	7484.0	7471.3	7166.2	6820.4	6463.1	5553.6	4710.1	4434.0	4463.0	4791.4	4985.1
42.5°	8711.5	8680.1	8154.6	7611.6	7310.0	6388.9	5308.8	4836.6	4830.8	5086.0	5197.4
45°	9690.6	9665.1	9191.7	8522.4	8281.0	7340.2	6082.6	5436.4	5393.5	5553.6	5589.5
47.5°	10220.8	10221.9	9949.3	9402.9	9397.1	8549.0	7076.8	6304.2	6229.9	6305.3	6267.0
50°	10035.2	10059.5	10030.5	9856.5	10415.7	10133.8	8375.0	7514.2	7364.5	7438.8	7291.4
52.5°	9137.2	9168.5	9340.2	9607.1	10843.8	12049.2	10282.3	9017.7	8843.7	8817.0	8653.4
55°	7545.5	7583.8	7934.2	8659.2	10487.6	13335.8	13291.7	10934.3	10657.0	10405.2	10335.6
57.5°	5200.9	5264.7	5828.5	6905.1	9335.6	13724.4	16875.3	13666.4	13102.6	12223.2	12239.4
60°	2931.7	3005.9	3670.7	4648.7	7010.7	13302.1	19601.6	17804.6	16614.3	14352.0	14472.7
62.5°	1864.3	1944.4	2449.0	3229.8	4206.6	11028.2	20718.8	23557.7	22046.0	16976.3	17094.6
65°	1509.3	1544.1	1782.0	2666.0	3054.6	6644.1	19870.8	28296.9	27733.0	20307.0	19754.8
67.5°	1473.4	1485.0	1607.9	2237.9	2929.3	3734.5	15849.8	29183.2	29808.5	23417.3	20862.7
70°	1456.0	1496.6	1812.1	2135.8	2805.2	3149.8	9524.7	26753.9	27741.1	24230.6	19388.2
72.5°	706.5	704.2	911.9	1931.6	3160.2	3266.9	4893.4	21647.0	22637.7	20992.6	15932.1
75°	569.6	520.9	497.7	707.7	3038.4	3373.7	3118.4	14895.0	15611.9	14074.8	9793.9
77.5°	540.6	482.6	442.0	443.2	1284.3	3577.9	2641.6	8243.9	8452.7	6357.5	2683.4
80°	447.8	394.4	365.4	411.8	621.8	3407.3	2856.3	3731.0	3423.6	1561.5	893.3
82.5°	310.9	283.1	275.0	345.7	497.7	2428.2	3321.5	2004.7	1681.0	781.9	551.1
85°	198.4	169.4	187.9	251.7	387.5	1120.7	3421.2	1562.7	1242.5	496.5	310.9
87.5°	91.7	74.2	92.8	139.2	252.9	386.3	3255.3	1755.3	1279.6	262.2	196.1
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°	5074.4	5074.4	5074.4	5074.4	5074.4	5074.4	5074.4	5074.4	5074.4	5074.4	5074.4
2.5°	5076.8	5054.7	5037.3	5004.8	4968.9	4934.1	4902.7	4863.3	4851.7	4841.2	4857.5
5°	5093.0	5070.9	5007.1	4907.4	4797.2	4693.9	4590.7	4502.5	4448.0	4417.8	4435.2
7.5°	5117.4	5086.0	4953.8	4770.5	4572.1	4391.1	4204.3	4054.7	3944.5	3892.3	3907.3
10°	5139.4	5079.1	4863.3	4588.3	4298.3	4029.1	3734.5	3490.8	3309.9	3214.7	3237.9
12.5°	5148.7	5052.4	4736.8	4360.9	3963.0	3568.6	3134.7	2770.4	2510.5	2415.4	2395.7
15°	5158.0	5022.2	4597.6	4102.2	3558.1	3000.1	2392.2	1956.0	1740.2	1692.6	1682.2
17.5°	5160.3	4970.0	4439.8	3821.5	3083.6	2323.8	1635.8	1358.5	1359.7	1436.2	1445.5
20°	5135.9	4892.3	4248.4	3472.3	2515.2	1606.8	1123.0	1075.4	1250.6	1442.0	1465.3
22.5°	5080.2	4789.0	4031.5	3065.1	1864.3	1058.0	868.9	921.1	1147.4	1381.7	1408.4
25°	5009.5	4663.7	3775.1	2592.9	1234.4	756.4	728.6	792.4	945.5	1102.1	1117.2
27.5°	4913.2	4515.2	3487.4	2052.3	801.7	623.0	641.6	684.5	747.1	816.7	823.7
30°	4789.0	4337.7	3179.9	1496.6	605.6	560.3	587.0	610.2	636.9	676.4	679.8
32.5°	4646.3	4167.2	2864.4	1033.7	537.1	527.9	548.7	560.3	581.2	605.6	607.9
35°	4526.8	4004.8	2537.2	730.9	508.1	503.5	517.4	522.1	541.8	568.5	570.8
37.5°	4458.4	3872.5	2199.6	589.3	488.4	481.5	489.6	489.6	517.4	556.9	562.7
40°	4463.0	3799.4	1862.0	532.5	472.2	462.9	464.1	464.1	500.0	542.9	546.4
42.5°	4589.5	3818.0	1562.7	510.5	459.4	449.0	443.2	446.7	476.8	504.7	507.0
45°	4886.5	3949.1	1281.9	496.5	446.7	443.2	430.4	429.2	440.9	453.6	453.6
47.5°	5373.7	4207.8	1091.7	487.3	436.2	435.1	420.0	404.9	403.7	408.4	408.4
50°	6166.1	4653.3	964.1	476.8	429.2	420.0	402.6	379.4	371.2	374.7	374.7
52.5°	7354.1	5448.0	915.3	462.9	414.2	399.1	379.4	356.2	349.2	350.4	350.4
55°	8912.2	6668.5	908.4	446.7	397.9	373.6	357.3	339.9	331.8	334.1	334.1
57.5°	10815.9	8356.5	1032.5	421.1	375.9	348.0	338.8	327.2	321.4	324.8	323.7
60°	13130.4	10565.3	1531.4	394.4	353.8	324.8	324.8	315.6	310.9	314.4	313.2
62.5°	15796.4	13102.6	2153.2	374.7	330.6	306.3	310.9	306.3	301.6	304.0	302.8
65°	18160.8	14755.8	2016.3	359.6	307.4	288.9	297.0	294.7	291.2	293.5	292.4
67.5°	18229.2	14143.2	1132.3	343.4	285.4	271.5	283.1	281.9	279.6	281.9	280.8
70°	16268.6	11942.4	638.1	313.2	262.2	250.6	266.8	265.7	263.4	268.0	266.8
72.5°	13034.1	8666.2	466.4	276.1	239.0	228.5	247.1	245.9	245.9	252.9	249.4
75°	7500.3	4459.6	372.4	236.7	214.6	206.5	222.7	223.9	226.2	235.5	228.5
77.5°	2138.1	1389.8	304.0	200.7	184.5	181.0	197.2	199.5	200.7	211.1	201.9
80°	794.7	640.4	250.6	168.2	150.8	152.0	167.1	170.5	171.7	182.1	170.5
82.5°	507.0	422.3	203.0	129.9	118.3	117.2	135.7	140.4	140.4	141.5	134.6
85°	295.8	252.9	153.1	94.0	83.5	80.0	100.9	109.1	105.6	103.3	98.6
87.5°	198.4	174.0	94.0	52.2	45.2	42.9	59.2	65.0	62.6	59.2	55.7
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)