

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: P300307

Luminaire Tested: **GLNA-AF-03-LED-E1-AFL-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300307
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24165)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-03-LED-E1-AFL-7027
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16142.7 lumens
Efficiency: N/A
Efficacy: 97.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

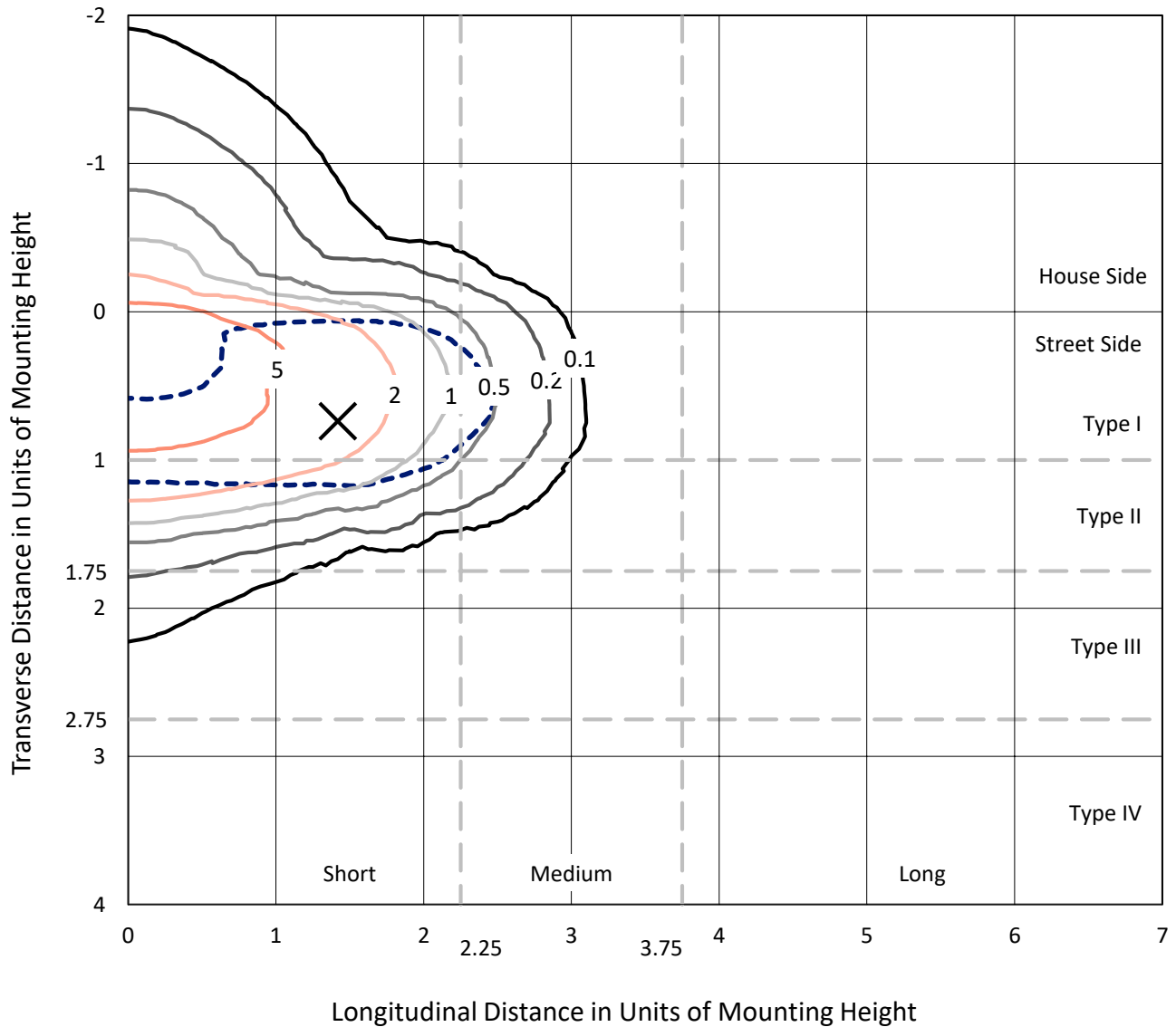
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

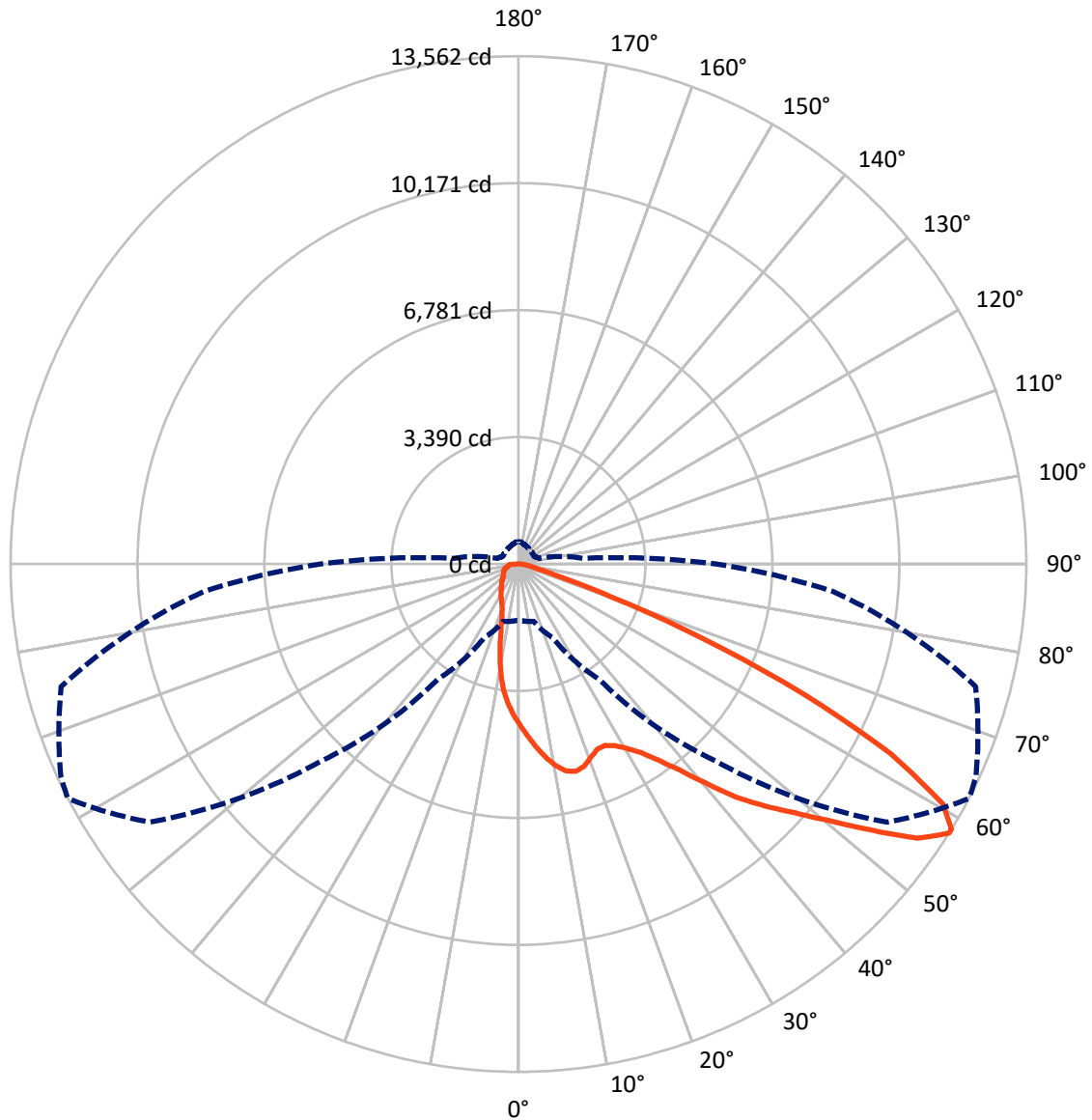
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.4 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 62.5-Deg Lateral - - - Horizontal Cone Through 58-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2461.8	0.0	2461.8
	% Fixture	15.3	0.0	15.3
Street Side	Lumens	13680.9	0.0	13680.9
	% Fixture	84.7	0.0	84.7
Total	Lumens	16142.7	0.0	16142.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	383.5	2.4
10°-20°	980.3	6.1
20°-30°	1584.6	9.8
30°-40°	2515.6	15.6
40°-50°	3680.9	22.8
50°-60°	3849.9	23.8
60°-70°	2274.5	14.1
70°-80°	640.7	4.0
80°-90°	232.6	1.4
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°	16142.7	100.0
0°-180°	16142.7	100.0



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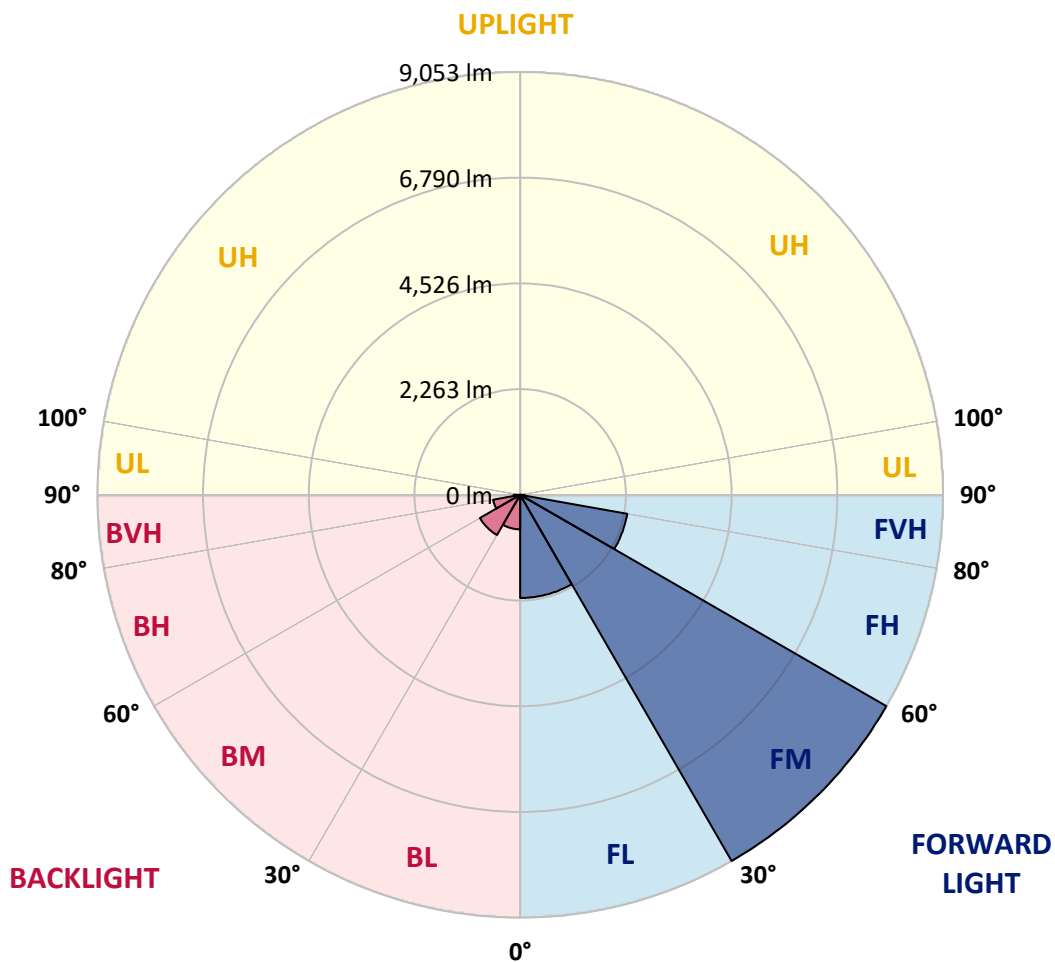
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2208.5	13.7			
FM	(30°-60°)	9052.7	56.1			
FH	(60°-80°)	2327.8	14.4			G2/5000
FVH	(80°-90°)	91.8	0.6			G1/100
BL	(0°-30°)	739.9	4.6	B2/1000		
BM	(30°-60°)	993.7	6.2	B1/1000		
BH	(60°-80°)	587.4	3.6	B2/1000		G2/1000
BVH	(80°-90°)	140.9	0.9			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	62.5°	65°	75°	85°
0°	4288.0	4288.0	4288.0	4288.0	4288.0	4288.0	4288.0	4288.0	4288.0	4288.0	4288.0
2.5°	4899.9	4860.4	4835.3	4813.2	4784.4	4722.8	4639.9	4587.5	4560.9	4470.4	4363.2
5°	5380.3	5345.3	5319.5	5289.8	5238.2	5141.6	5007.8	4901.4	4849.0	4668.0	4453.7
7.5°	5267.8	5282.2	5327.1	5405.4	5472.3	5459.4	5340.0	5204.7	5135.5	4883.9	4558.6
10°	4589.8	4614.8	4692.4	4875.6	5172.0	5476.1	5568.8	5475.3	5405.4	5097.5	4666.5
12.5°	4453.7	4452.9	4459.0	4507.7	4684.0	5112.0	5576.4	5670.7	5628.9	5301.2	4776.7
15°	4509.2	4510.7	4506.1	4526.7	4581.4	4750.9	5343.8	5745.9	5775.6	5506.5	4890.8
17.5°	4655.1	4651.3	4633.8	4633.8	4653.6	4719.7	5070.2	5676.0	5812.8	5688.2	4991.1
20°	4899.9	4882.4	4836.0	4793.5	4772.2	4807.9	4957.7	5514.8	5748.2	5847.0	5074.0
22.5°	5196.3	5182.7	5107.4	5016.2	4942.5	4941.7	5015.4	5374.2	5636.5	5996.8	5143.9
25°	5579.5	5557.4	5445.7	5299.7	5170.5	5121.1	5141.6	5367.4	5575.7	6159.5	5206.2
27.5°	6029.5	5989.2	5856.9	5646.4	5456.3	5356.7	5327.1	5491.3	5631.2	6360.9	5292.9
30°	6575.3	6528.9	6359.4	6085.0	5816.6	5653.2	5590.1	5711.0	5815.1	6606.4	5432.0
32.5°	7196.3	7129.4	6933.3	6630.7	6278.0	6028.7	5926.1	6001.3	6084.2	6902.1	5606.1
35°	8054.5	7974.7	7691.1	7273.8	6875.5	6532.7	6368.5	6423.2	6503.8	7343.0	5857.7
37.5°	8639.8	8604.1	8415.6	8023.3	7590.0	7195.5	6941.6	6973.6	7019.2	7894.1	6180.0
40°	8634.5	8648.9	8652.7	8656.5	8361.6	7983.8	7710.9	7677.5	7668.3	8499.2	6546.4
42.5°	8202.0	8261.3	8452.8	8841.2	9020.6	8847.3	8597.2	8500.7	8452.8	9212.2	6934.8
45°	7539.9	7571.8	7930.6	8689.2	9358.1	9702.5	9513.2	9209.2	9122.5	9867.4	7257.1
47.5°	7198.6	7233.5	7459.3	8286.3	9354.3	10393.5	10502.9	9923.7	9768.6	10437.5	7535.3
50°	6386.0	6458.9	6743.2	7585.5	9013.0	10711.2	11537.5	10775.1	10454.3	10992.5	7814.3
52.5°	4893.8	5006.3	5324.8	6433.1	8147.2	10553.8	12365.3	11807.3	11354.3	11567.1	8053.7
55°	3086.9	3170.6	3438.1	4543.4	6517.5	9735.2	12679.2	12924.0	12521.1	12111.4	8261.3
57.5°	1678.4	1715.6	1816.0	2508.5	4239.3	7925.3	12221.6	13559.5	13392.2	12573.6	8417.8
58°	1502.0	1527.1	1589.5	2174.0	3759.7	7430.4	12018.6	13561.7	13478.1	12641.2	8430.0
60°	1114.4	1101.4	1046.0	1240.6	2092.7	5133.3	10791.8	13019.0	13264.5	12724.1	8370.7
62.5°	979.1	947.9	834.6	821.7	1017.8	2364.8	8257.5	11152.1	11732.1	12251.3	8010.4
65°	919.8	886.3	740.4	693.3	734.3	1000.4	4864.2	8363.9	9091.3	10817.6	7089.1
67.5°	875.7	832.4	680.3	615.7	618.8	661.3	1949.8	5267.8	6086.5	8213.4	5514.1
70°	833.1	786.0	629.4	554.9	537.4	523.0	775.3	2636.9	3379.6	5188.0	3515.7
72.5°	787.5	741.1	584.6	507.0	472.8	424.9	506.3	1078.6	1506.6	2454.5	1594.8
75°	721.4	679.6	539.7	464.4	415.8	351.9	382.4	563.3	675.8	977.5	768.5
77.5°	640.0	605.8	489.5	429.5	368.7	285.8	294.2	390.7	433.3	559.5	456.8
80°	459.9	472.0	435.6	386.2	328.4	231.8	225.8	285.1	307.9	359.5	297.2
82.5°	323.1	329.9	360.3	315.5	271.4	182.4	166.5	200.7	214.4	236.4	160.4
85°	222.7	215.1	247.0	219.7	196.1	121.6	114.0	136.1	144.4	146.7	82.9
87.5°	133.8	133.8	142.9	117.8	105.7	63.1	61.6	77.5	82.9	79.1	45.6
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°	4288.0	4288.0	4288.0	4288.0	4288.0	4288.0	4288.0	4288.0	4288.0	4288.0	4288.0
2.5°	4299.4	4245.4	4130.6	4038.6	3922.3	3801.5	3733.8	3661.6	3612.2	3576.5	3633.5
5°	4332.1	4221.8	3984.7	3759.7	3511.1	3252.7	3056.5	2874.1	2747.2	2668.1	2742.6
7.5°	4383.8	4214.2	3836.5	3451.8	3005.6	2575.4	2190.7	1949.8	1809.1	1740.0	1783.3
10°	4443.0	4202.1	3662.4	3034.5	2396.0	1854.0	1566.7	1469.4	1437.4	1424.5	1430.6
12.5°	4492.5	4176.2	3448.8	2529.8	1799.3	1464.0	1381.2	1378.9	1385.7	1387.3	1389.5
15°	4527.4	4138.2	3131.8	2003.7	1439.0	1334.1	1329.5	1343.2	1356.1	1361.4	1364.5
17.5°	4551.0	4059.9	2773.8	1584.1	1289.2	1271.0	1281.6	1299.1	1312.8	1316.6	1319.6
20°	4548.7	3945.2	2347.3	1321.1	1207.9	1207.9	1226.1	1239.8	1240.6	1236.0	1238.3
22.5°	4525.1	3787.8	1933.8	1181.3	1135.7	1148.6	1166.8	1153.9	1100.7	1065.7	1068.0
25°	4485.6	3600.0	1579.6	1092.3	1068.8	1091.6	1086.2	988.9	912.9	878.7	878.7
27.5°	4450.6	3378.1	1307.4	1014.8	1001.9	1030.0	935.7	847.6	815.6	799.7	794.4
30°	4425.6	3138.6	1125.8	940.3	938.8	918.3	811.8	787.5	782.2	769.3	764.7
32.5°	4431.6	2896.2	1009.5	874.9	880.2	786.0	752.5	757.9	753.3	739.6	733.5
35°	4481.8	2665.8	933.5	815.6	799.7	710.0	717.6	727.5	725.9	706.9	700.9
37.5°	4571.5	2447.7	883.3	766.2	697.8	672.0	684.1	699.3	695.5	682.6	678.0
40°	4665.8	2242.4	842.2	727.5	637.8	646.1	656.8	665.1	668.9	672.7	669.7
42.5°	4757.7	2028.1	792.1	687.9	612.7	621.8	626.4	634.7	655.2	669.7	668.9
45°	4812.5	1826.6	740.4	631.7	592.9	598.2	595.2	611.9	637.0	660.6	661.3
47.5°	4873.3	1670.0	699.3	580.0	573.9	577.7	568.6	585.3	608.1	637.0	640.0
50°	4947.0	1576.5	666.6	538.9	548.1	548.1	545.8	561.0	592.9	626.4	632.4
52.5°	5030.6	1558.3	639.3	509.3	522.2	521.5	523.7	546.5	581.5	614.2	619.5
55°	5132.5	1607.7	609.6	487.3	497.1	500.2	507.8	533.6	563.3	600.5	602.8
57.5°	5251.1	1708.0	586.1	469.8	474.3	484.2	496.4	519.9	551.9	592.9	595.2
58°	5270.8	1729.3	582.3	468.2	469.8	481.2	494.9	517.7	549.6	594.4	596.7
60°	5271.6	1800.0	573.9	461.4	452.3	471.3	486.5	509.3	545.8	599.8	605.1
62.5°	5084.6	1799.3	567.8	451.5	434.0	457.6	475.1	501.7	542.0	612.7	623.3
65°	4477.3	1635.1	538.9	436.3	419.6	445.4	465.2	496.4	552.6	668.9	675.8
67.5°	3502.0	1340.1	485.0	415.0	400.6	433.3	459.1	495.6	564.0	681.8	686.4
70°	2315.4	1002.6	425.7	390.7	380.8	418.8	462.2	521.5	551.1	654.5	642.3
72.5°	1201.8	703.9	377.8	360.3	358.0	405.9	506.3	518.4	538.2	615.7	600.5
75°	630.9	488.8	336.0	326.9	330.7	402.9	597.5	504.7	521.5	589.1	618.0
77.5°	386.2	394.5	300.3	296.5	304.1	393.8	596.7	487.3	497.1	542.0	573.9
80°	258.4	320.0	272.9	273.7	279.0	360.3	535.9	459.9	467.5	512.3	545.0
82.5°	163.4	189.3	247.8	260.7	253.9	297.2	455.3	418.8	429.5	586.1	619.5
85°	82.9	118.6	215.1	250.8	228.8	208.3	369.4	367.1	372.5	422.6	441.6
87.5°	38.0	65.4	168.0	218.9	172.6	130.0	268.3	272.1	293.4	300.3	300.3
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)