

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: P651647

Luminaire Tested: **GALN-SA9D-840-U-T3R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P651647
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-8)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA9D-840-U-T3R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 80 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 60356 lumens
Efficiency: N/A
Efficacy: 109.3 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B4 - U0 - G5

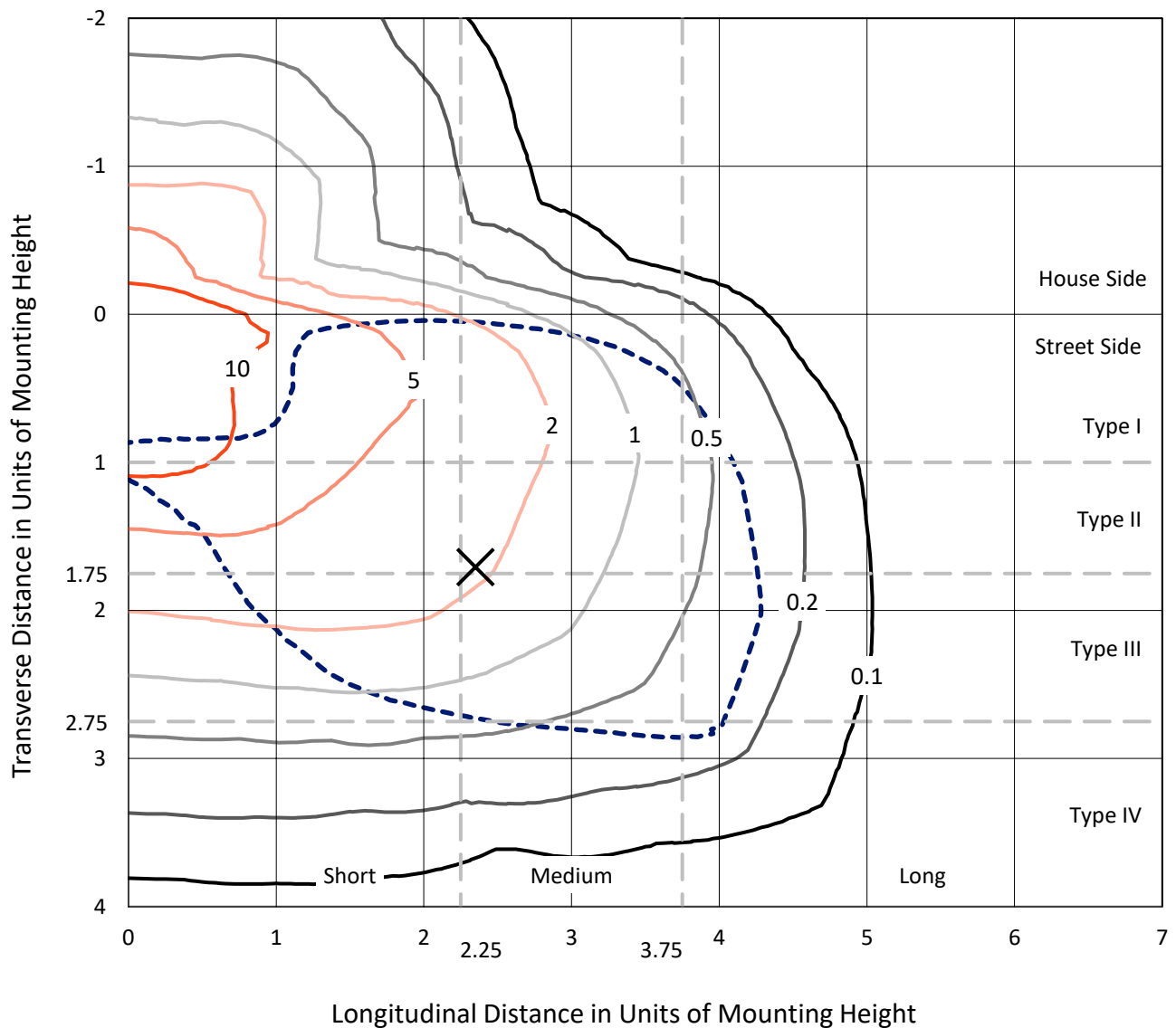
Input Watts (W): 552
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

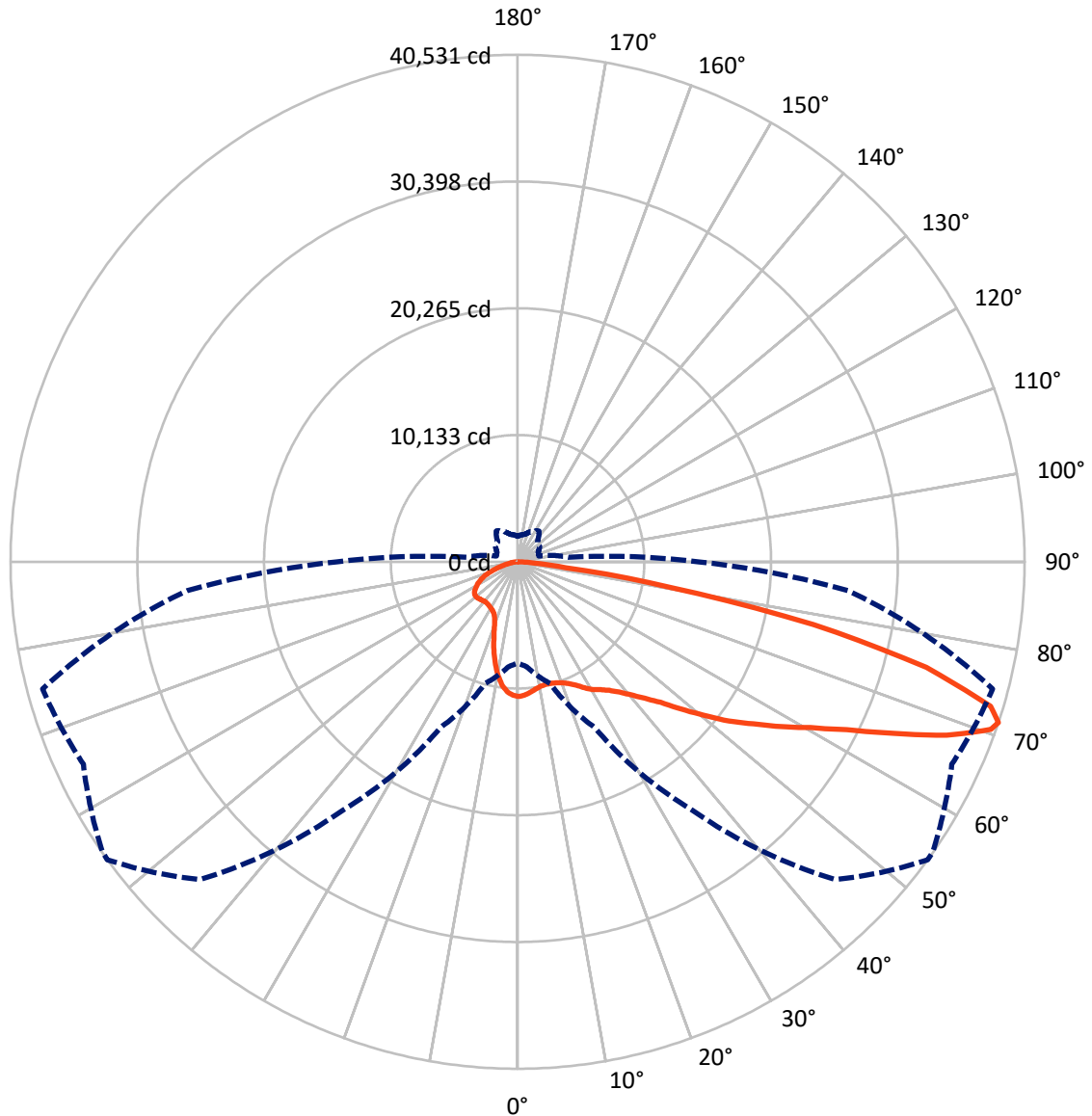
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 17.4 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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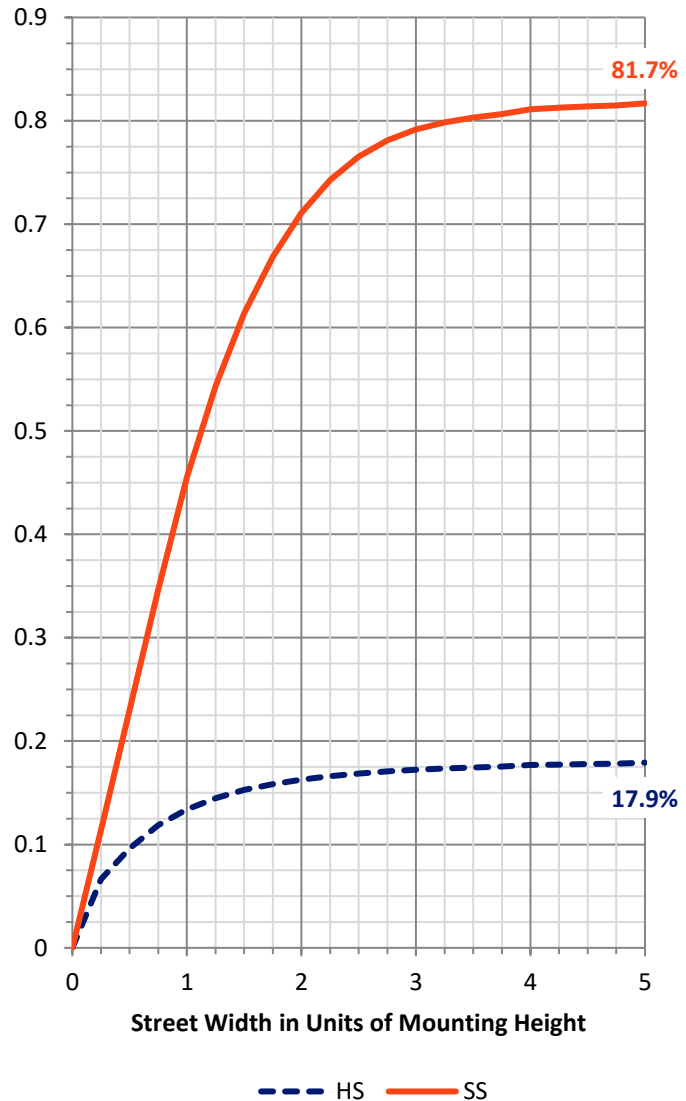
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10896.9	0.0	10896.9
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	49459.1	0.0	49459.1
	% Fixture	81.9	0.0	81.9
Total	Lumens	60356.0	0.0	60356.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	959.6	1.6
10°-20°	2533.9	4.2
20°-30°	4219.0	7.0
30°-40°	6238.6	10.3
40°-50°	8787.3	14.6
50°-60°	11766.5	19.5
60°-70°	14830.8	24.6
70°-80°	10129.4	16.8
80°-90°	890.8	1.5
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°	60356.0	100.0
0°-180°	60356.0	100.0

Coefficient of Utilization

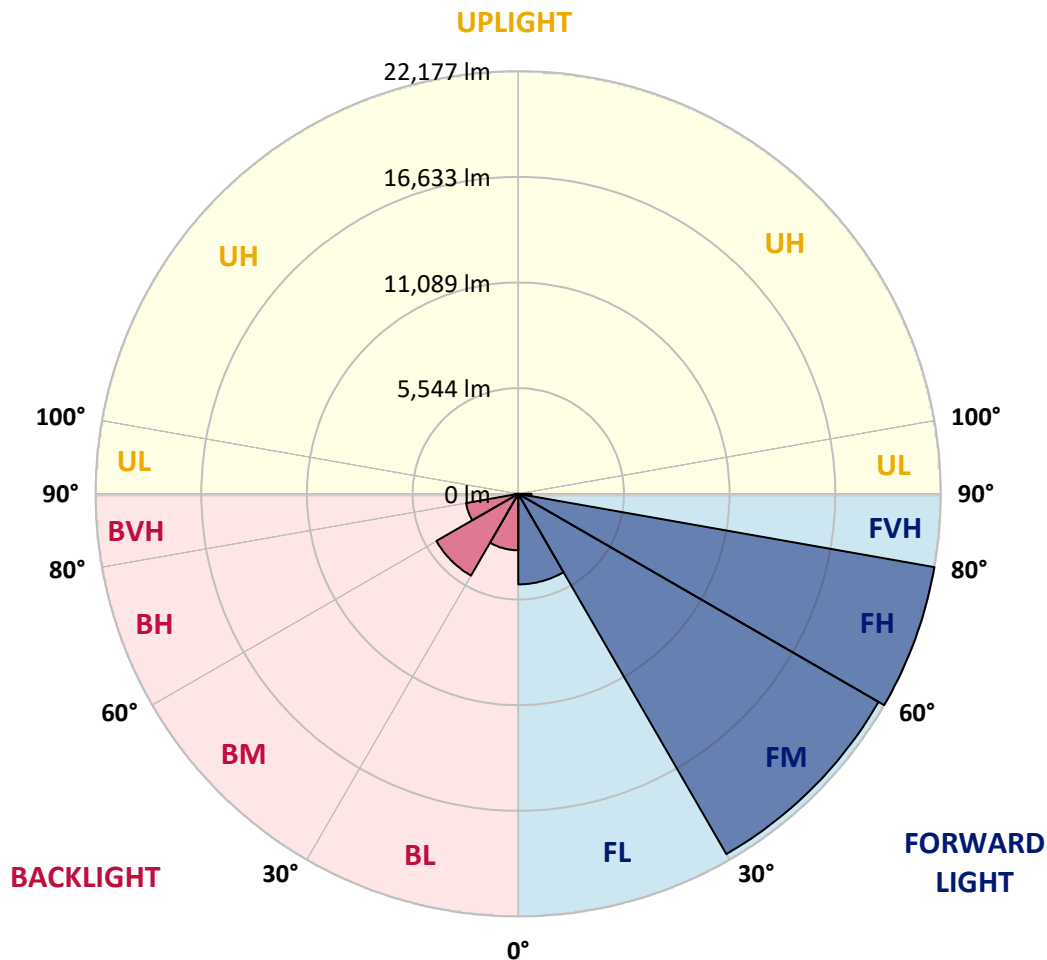


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	4751.0	7.9			
FM (30°-60°)	21834.6	36.2			
FH (60°-80°)	22177.2	36.7			G5
FVH (80°-90°)	696.3	1.2			G4/750
BL (0°-30°)	2961.6	4.9	B4/5000		
BM (30°-60°)	4957.8	8.2	B3/5000		
BH (60°-80°)	2783.0	4.6	B4/5000		G4/5000
BVH (80°-90°)	194.5	0.3			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5
 Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	10768.4	10768.4	10768.4	10768.4	10768.4	10768.4	10768.4	10768.4	10768.4	10768.4	10768.4
2.5°	10403.3	10452.2	10465.2	10497.8	10566.2	10621.7	10677.2	10670.6	10748.8	10781.5	10810.8
5°	9940.3	9953.4	10002.3	10067.4	10188.1	10341.4	10491.3	10494.6	10686.9	10840.2	10915.1
7.5°	9601.3	9643.7	9676.2	9744.8	9871.8	10038.1	10276.1	10295.7	10638.0	10941.2	11100.9
10°	9379.6	9428.5	9464.4	9549.1	9676.2	9862.1	10119.7	10155.5	10602.2	11100.9	11381.3
12.5°	9177.4	9226.4	9258.9	9369.7	9536.1	9764.3	10054.4	10096.8	10615.2	11286.8	11687.8
15°	9301.3	9340.5	9327.4	9360.0	9470.8	9731.6	10080.5	10122.9	10664.0	11466.1	11991.0
17.5°	9852.3	9884.9	9777.3	9653.4	9601.3	9793.6	10162.1	10207.6	10761.9	11651.9	12300.7
20°	10664.0	10752.1	10517.4	10240.3	9989.2	10015.3	10331.5	10380.5	10898.9	11837.7	12616.9
22.5°	11720.4	11785.6	11498.7	11042.2	10579.4	10341.4	10585.8	10615.2	11104.2	12079.0	12962.5
25°	12962.5	13001.6	12603.9	12017.0	11348.7	10898.9	10934.7	10986.8	11443.2	12352.9	13269.0
27.5°	14168.8	14292.7	13833.0	13115.7	12235.5	11485.6	11414.0	11446.5	11811.7	12506.1	13480.9
30°	15600.0	15590.2	15104.4	14273.1	13145.1	12124.6	11867.1	11860.5	12010.6	12581.1	13634.1
32.5°	16741.1	16874.7	16398.7	15492.4	14185.1	12786.5	12180.0	12167.0	12163.8	12711.5	13862.4
35°	18038.6	18058.2	17621.3	16708.5	15309.9	13617.8	12616.9	12551.8	12476.7	12991.9	14172.0
37.5°	19199.3	19290.5	18889.5	17865.9	16415.1	14481.8	13216.8	13174.4	12946.2	13477.6	14667.6
40°	20105.6	20174.1	19932.8	18958.0	17504.0	15414.2	13979.7	13901.5	13624.4	14273.1	15329.4
42.5°	20402.2	20542.4	20637.0	20157.8	18755.9	16519.4	14918.7	14820.9	14608.9	15479.4	16092.3
45°	20425.1	20646.8	21145.6	21168.4	20014.3	17843.0	16014.1	15945.6	15929.3	17024.7	17164.9
47.5°	20252.3	20477.3	21315.1	21768.3	21135.8	19179.7	17595.2	17487.7	17497.4	18935.2	18367.9
50°	19835.0	20102.3	21119.5	22153.0	22012.8	20568.6	19264.5	19228.6	19430.7	21116.2	19616.6
52.5°	19049.3	19372.1	20917.4	22394.2	22664.9	21765.1	21161.9	21060.8	21572.7	23483.2	20982.6
55°	16874.7	17360.5	20177.4	22528.0	23284.3	22909.3	22870.2	23052.8	23730.9	26065.2	22485.6
57.5°	15740.2	16105.3	18570.0	22550.7	24066.7	24239.6	24865.5	24911.1	26097.8	28807.0	24184.1
60°	15120.8	15443.5	17689.8	22400.8	25158.9	25885.9	26906.4	27069.4	28409.3	31777.1	25944.6
62.5°	14579.6	14856.7	17161.6	21882.4	26391.3	28327.8	29550.4	29628.6	31033.7	35056.8	27682.3
65°	13304.9	13621.1	16098.8	21364.0	27454.1	31379.3	33058.4	32967.0	33827.7	37886.7	28771.2
67.5°	11586.7	11987.7	14113.4	19574.2	27979.0	34714.5	37009.7	36895.6	36585.9	39741.7	29084.1
70°	9392.6	9607.8	11573.7	16480.2	25882.7	36465.3	40129.7	40009.1	38294.2	39986.3	27604.1
71°	8082.0	8417.8	10077.3	14638.3	24138.5	35930.5	40530.7	40498.1	38297.5	39311.4	26489.1
72.5°	6308.5	6513.9	7980.9	11342.2	20516.4	32892.1	39539.6	39663.5	37466.1	37436.8	24190.6
75°	3990.5	4081.8	5007.7	6676.9	11257.5	23294.1	33752.8	34088.6	33267.0	30642.5	17989.7
77.5°	2318.0	2435.4	2999.3	3935.0	4864.2	12643.0	24151.5	24516.7	23114.7	16871.5	7364.8
80°	1349.7	1480.2	1975.7	2285.4	2233.2	4691.4	12297.4	12920.1	10008.8	4261.1	2066.9
82.5°	749.8	837.9	1388.8	1392.1	1189.9	1532.3	3869.9	4049.2	2856.0	1718.1	844.4
85°	544.5	616.2	896.6	811.8	570.5	658.6	1346.4	1411.7	1154.1	723.8	273.8
87.5°	192.3	273.8	492.3	391.2	156.5	136.9	388.0	316.2	293.4	202.1	62.0
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°	10768.4	10768.4	10768.4	10768.4	10768.4	10768.4	10768.4	10768.4	10768.4	10768.4	10768.4
2.5°	10827.1	10833.6	10801.0	10742.3	10683.6	10608.6	10523.9	10458.7	10429.3	10426.1	10422.8
5°	10944.4	10960.8	10836.9	10654.3	10452.2	10204.4	9992.5	9751.2	9689.3	9591.5	9620.8
7.5°	11133.6	11123.7	10879.3	10491.3	10018.6	9493.7	9050.3	8792.7	8525.4	8450.5	8453.6
10°	11404.1	11342.2	10879.3	10158.8	9369.7	8590.6	7971.2	7579.9	7368.0	7192.0	7126.8
12.5°	11691.1	11534.6	10774.9	9692.5	8535.1	7579.9	6914.9	6386.7	6249.8	6106.3	6109.6
15°	11964.9	11704.1	10569.5	9037.2	7635.4	6500.8	5855.3	5539.1	5496.7	5513.0	5509.7
17.5°	12212.7	11824.7	10256.6	8307.0	6585.6	5574.9	5232.6	5255.4	5369.5	5451.0	5460.8
20°	12463.7	11896.4	9790.3	7328.9	5594.5	5014.2	5027.2	5206.5	5379.3	5490.1	5506.4
22.5°	12701.7	11929.1	9242.7	6383.4	4877.2	4776.2	4968.5	5160.9	5330.4	5438.0	5454.3
25°	12858.2	11854.1	8466.7	5395.6	4525.2	4691.4	4893.5	5056.6	5200.0	5310.8	5336.9
27.5°	12900.6	11612.8	7505.0	4596.9	4362.1	4609.9	4795.7	4916.4	5027.2	5131.5	5151.1
30°	12877.7	11257.5	6448.6	4127.4	4267.6	4515.3	4658.8	4746.9	4880.5	4962.0	4978.3
32.5°	12841.9	10843.4	5346.7	3876.3	4189.4	4427.4	4512.1	4590.3	4587.1	4554.5	4577.3
35°	12854.9	10347.8	4453.4	3726.4	4120.9	4362.1	4433.8	4336.0	4055.6	4042.6	4029.6
37.5°	12923.4	9858.8	3804.7	3622.1	4085.0	4352.3	4391.4	3941.6	3693.8	3579.7	3550.4
40°	13099.4	9288.3	3377.5	3543.8	4081.8	4427.4	4199.1	3742.7	3266.7	3045.0	3028.7
42.5°	13334.2	8727.6	3116.7	3494.9	4120.9	4541.5	4120.9	3462.3	2943.9	2813.6	2794.0
45°	13683.0	8085.3	2973.3	3472.1	4179.6	4583.9	4094.8	3256.9	2813.6	2709.2	2709.2
47.5°	14077.5	7472.4	2895.1	3455.8	4254.5	4554.5	3863.3	3191.8	2751.6	2764.6	2826.6
50°	14468.7	6940.9	2836.4	3419.9	4319.7	4538.2	3768.8	3188.5	2767.9	2934.2	3045.0
52.5°	14921.9	6566.0	2764.6	3361.2	4319.7	4433.8	3739.4	3253.7	2813.6	2862.4	2911.4
55°	15469.6	6448.6	2673.4	3234.1	4241.5	4173.0	3723.1	3348.2	2846.1	2732.1	2751.6
57.5°	16193.4	6637.8	2585.3	3074.4	4062.2	3902.4	3716.6	3374.3	2771.2	2676.7	2657.1
60°	17034.5	7012.7	2559.2	2911.4	3817.7	3671.0	3677.5	3299.3	2666.8	2569.0	2585.3
62.5°	17624.6	7237.6	2542.9	2787.5	3550.4	3416.6	3582.9	3208.0	2621.2	2536.5	2552.8
65°	17624.6	6963.7	2393.0	2598.4	3204.8	3110.2	3468.9	3094.0	2562.5	2464.7	2448.4
67.5°	16956.2	6165.0	2164.7	2314.8	2823.3	2761.4	3309.1	2957.0	2474.5	2399.5	2360.4
70°	15215.3	4675.1	1877.9	1982.2	2340.8	2396.3	3103.7	2771.2	2327.8	2236.5	2177.8
71°	14449.1	4072.0	1757.3	1812.7	2155.0	2236.5	3005.9	2692.9	2262.5	2132.2	2027.8
72.5°	12972.3	3429.7	1574.7	1597.5	1842.0	1988.7	2800.5	2542.9	2138.7	1952.9	1835.5
75°	9855.6	2503.8	1268.2	1255.2	1362.8	1578.0	2370.2	2265.8	1874.6	1623.6	1555.1
77.5°	4257.8	1362.8	948.7	958.5	925.9	1196.5	1864.8	1946.3	1607.2	1320.4	1258.5
80°	1291.0	785.7	648.7	661.8	619.4	802.0	1313.9	1525.7	1291.0	1026.9	942.2
82.5°	661.8	469.4	443.4	436.9	394.5	453.1	795.5	1043.3	922.7	642.3	567.3
85°	286.9	251.0	218.4	211.9	185.9	163.0	283.7	521.7	489.0	358.6	342.3
87.5°	71.7	65.2	42.4	39.1	22.8	3.3	0.0	0.0	0.0	0.0	0.0
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)