

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: P457770

Luminaire Tested: **GALN-SA9A-827-U-SL4**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P457770
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-18)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA9A-827-U-SL4
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29831 lumens
Efficiency: N/A
Efficacy: 108.9 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

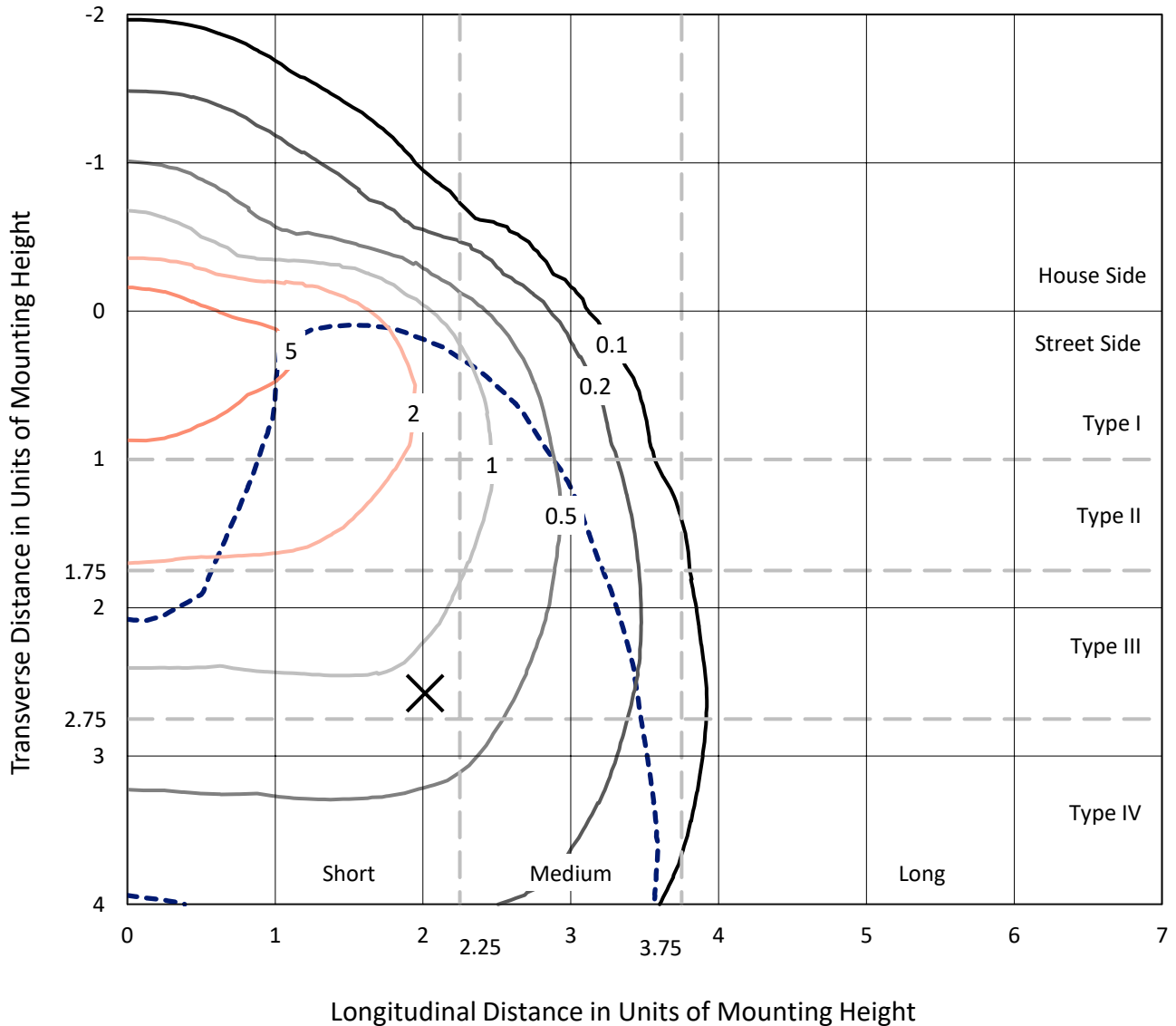
Input Watts (W): 274
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

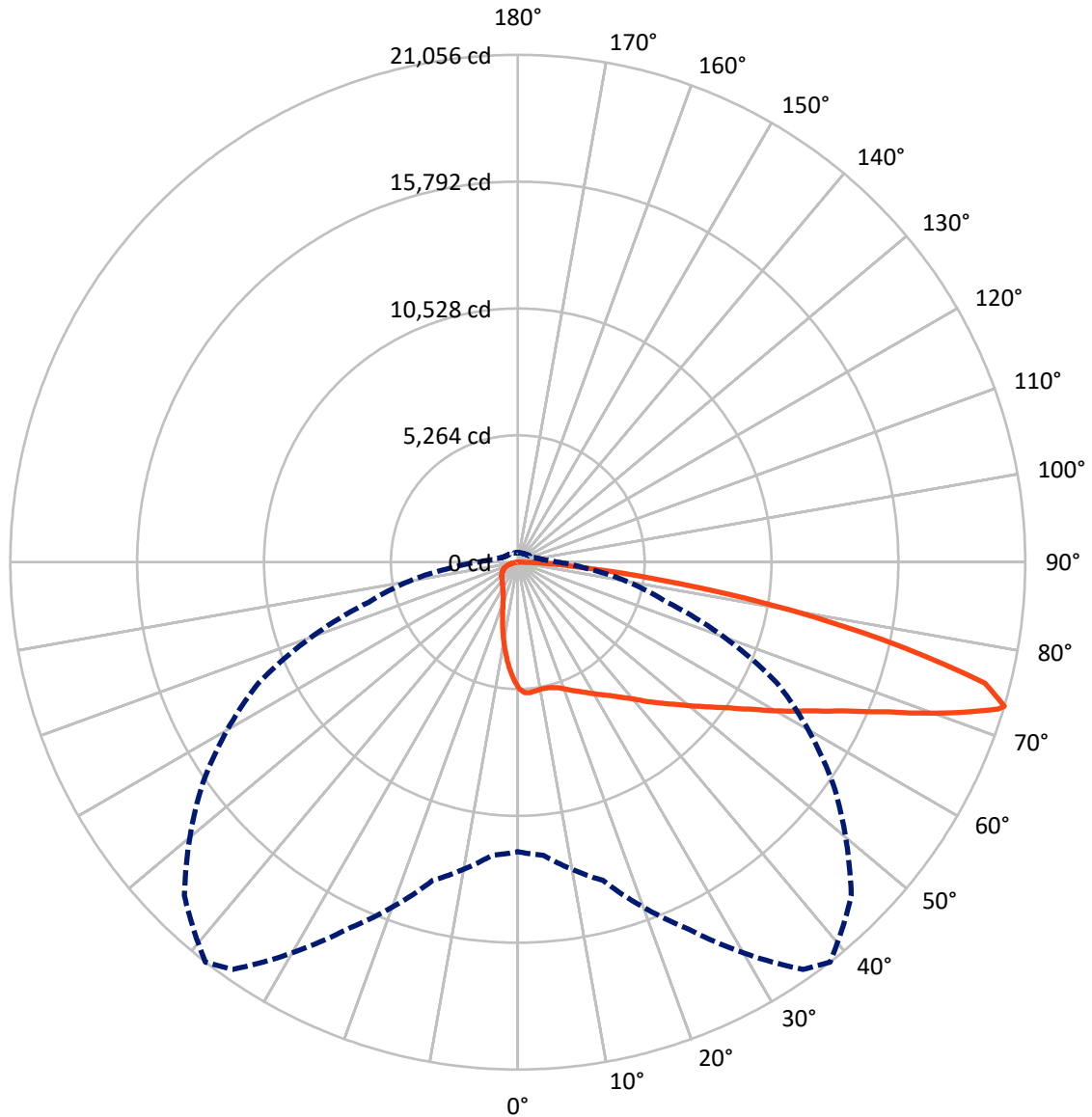
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.6 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral - - - Horizontal Cone Through 73-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4010.2	0.0	4010.2
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	25820.8	0.0	25820.8
	% Fixture	86.6	0.0	86.6
Total	Lumens	29831.0	0.0	29831.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	457.5	1.5
10°-20°	1173.1	3.9
20°-30°	1826.7	6.1
30°-40°	2679.4	9.0
40°-50°	3974.6	13.3
50°-60°	5631.2	18.9
60°-70°	7143.3	23.9
70°-80°	5946.3	19.9
80°-90°	999.1	3.3
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°	29831.0	100.0
0°-180°	29831.0	100.0

Coefficient of Utilization



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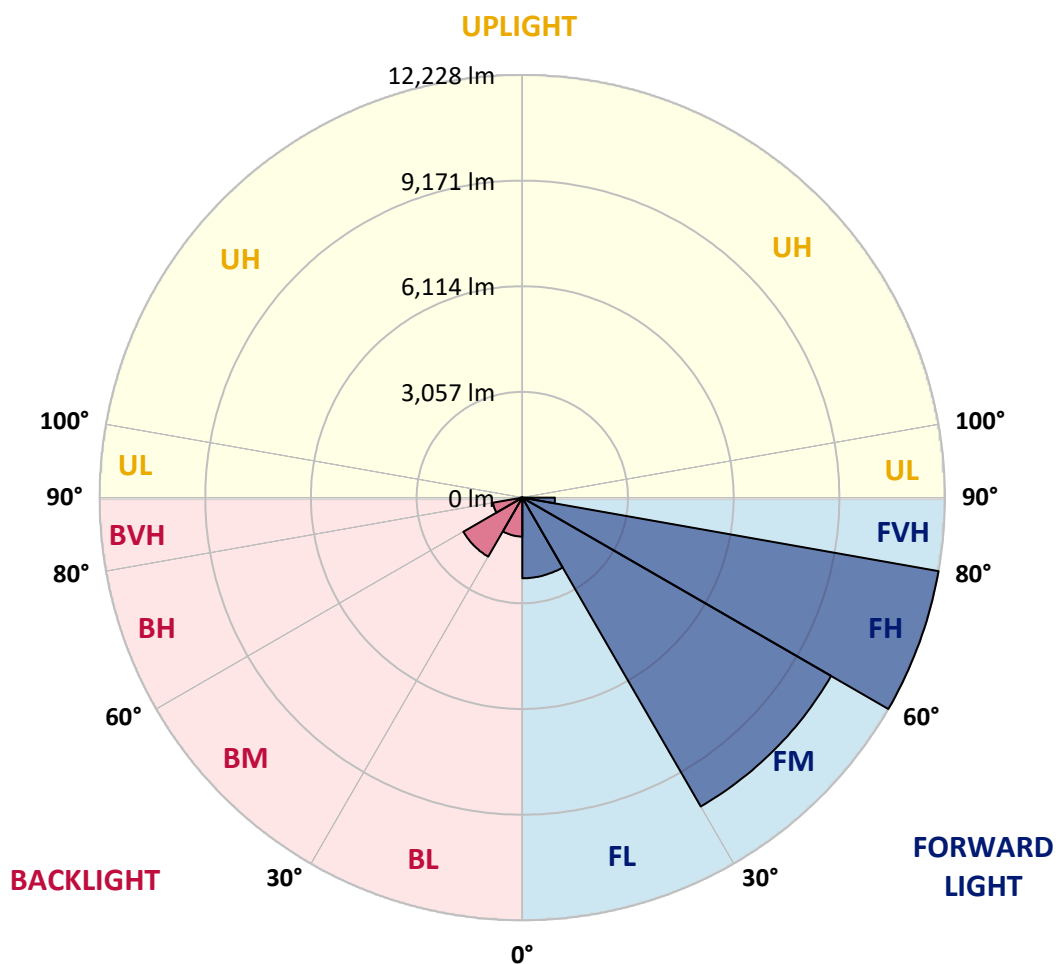
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2332.0	7.8			
FM (30°-60°)	10316.4	34.6			
FH (60°-80°)	12227.6	41.0			G5
FVH (80°-90°)	944.9	3.2			G5
BL (0°-30°)	1125.3	3.8	B3/2500		
BM (30°-60°)	1968.7	6.6	B2/2500		
BH (60°-80°)	862.0	2.9	B2/1000		G2/1000
BVH (80°-90°)	54.2	0.2			G1/100
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°	38°	45°	55°	65°	75°	85°
0°	5240.8	5240.8	5240.8	5240.8	5240.8	5240.8	5240.8	5240.8	5240.8	5240.8	5240.8
2.5°	5451.4	5478.3	5464.9	5446.3	5434.5	5422.7	5405.9	5357.0	5318.3	5276.2	5210.5
5°	5491.8	5508.7	5496.9	5473.3	5446.3	5434.5	5402.5	5338.5	5276.2	5205.4	5107.7
7.5°	5468.2	5475.0	5461.5	5432.8	5409.3	5387.4	5350.3	5279.5	5203.7	5117.8	4989.8
10°	5384.0	5409.3	5409.3	5385.7	5362.1	5350.3	5313.2	5245.9	5176.8	5079.1	4927.5
12.5°	5314.9	5341.9	5363.8	5357.0	5355.4	5355.4	5326.7	5276.2	5195.3	5102.7	4922.4
15°	5267.8	5299.8	5346.9	5373.9	5390.7	5395.8	5384.0	5340.2	5257.6	5149.8	4942.6
17.5°	5257.6	5296.4	5382.3	5441.3	5485.1	5483.4	5480.0	5419.4	5328.4	5217.2	4967.9
20°	5303.1	5353.7	5473.3	5565.9	5629.9	5618.2	5599.6	5520.4	5414.3	5289.7	4991.5
22.5°	5439.6	5491.8	5623.2	5724.3	5786.6	5786.6	5731.0	5626.6	5513.7	5373.9	5023.5
25°	5635.0	5692.3	5832.1	5934.9	5963.5	5941.6	5886.0	5759.7	5629.9	5495.2	5090.9
27.5°	5874.2	5943.3	6073.0	6158.9	6150.5	6133.6	6076.4	5914.6	5784.9	5662.0	5205.4
30°	6172.4	6222.9	6357.7	6377.9	6347.6	6344.2	6263.4	6101.6	5980.3	5886.0	5368.8
32.5°	6453.7	6499.2	6607.0	6615.4	6561.5	6568.3	6492.5	6344.2	6275.1	6241.5	5643.4
35°	6751.9	6775.5	6868.1	6858.0	6822.6	6817.6	6787.3	6645.8	6667.7	6728.3	6032.6
37.5°	7001.2	7048.4	7100.6	7109.0	7107.3	7124.2	7144.4	7077.0	7203.4	7393.7	6543.0
40°	7230.3	7270.7	7348.2	7375.2	7440.9	7474.6	7543.7	7545.3	7836.8	8150.1	7171.4
42.5°	7385.3	7454.4	7599.2	7648.1	7808.1	7909.2	8012.0	8121.5	8544.3	8946.9	7912.6
45°	7520.1	7611.0	7851.9	8003.6	8220.9	8343.8	8561.2	8790.3	9398.4	9925.7	8665.6
47.5°	7723.9	7804.8	8081.0	8348.9	8677.4	8818.9	9144.0	9486.0	10281.1	10859.0	9386.6
50°	8006.9	8055.8	8337.1	8773.4	9192.9	9374.8	9804.4	10298.0	11224.5	11780.4	10020.0
52.5°	8369.1	8389.3	8613.4	9194.6	9747.1	9972.9	10542.2	11118.4	12050.0	12580.6	10522.0
55°	8797.0	8763.3	8938.5	9641.0	10380.5	10675.3	11286.8	11948.9	12978.2	13227.5	10887.6
57.5°	9219.8	9167.6	9307.4	10183.4	11162.2	11517.6	12230.2	12804.7	13807.0	13832.3	11143.7
60°	9667.9	9629.2	9796.0	10820.2	12120.7	12541.9	13200.6	13692.5	14608.9	14253.4	11184.1
62.5°	10127.8	10065.5	10303.0	11536.2	13200.6	13583.0	14221.4	14635.8	15395.6	14410.1	10794.9
65°	10574.3	10545.6	10912.9	12386.9	14430.3	14864.9	15484.9	15766.2	16025.6	14174.3	9829.7
67.5°	11049.3	11106.6	11692.8	13522.3	16034.1	16579.9	17248.7	16984.2	16205.9	13057.4	8278.1
70°	11773.7	11810.8	12717.1	15009.8	18101.1	18759.7	19083.2	17417.1	15336.6	10936.4	6222.9
72.5°	12085.3	12248.8	13631.8	16571.4	20449.4	20852.0	19699.8	16451.8	12776.0	7429.1	3269.8
73°	12016.3	12211.7	13673.9	16809.0	20633.0	21055.9	19568.4	15954.9	11876.5	6398.1	2803.2
75°	11155.4	11396.3	13126.4	16610.2	20275.9	20023.2	17455.9	13598.1	8025.5	2909.3	1276.9
77.5°	8802.1	8871.1	10400.7	13412.8	15966.7	15498.4	13064.1	8498.8	3278.2	1081.5	724.4
80°	4415.3	4669.7	5862.4	7683.5	10677.0	10523.7	8246.1	4019.5	1366.2	635.1	480.1
82.5°	2124.3	2304.5	2855.4	3746.6	5899.5	5759.7	4083.5	2196.7	867.6	370.6	283.0
85°	1367.9	1502.7	1817.7	1787.4	2425.8	2316.3	1834.5	1662.7	513.8	193.7	197.1
87.5°	902.9	988.9	1186.0	948.4	882.7	798.5	810.3	936.6	101.1	74.1	27.0
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°	5240.8	5240.8	5240.8	5240.8	5240.8	5240.8	5240.8	5240.8	5240.8	5240.8	5240.8
2.5°	5183.5	5161.6	5089.2	5018.4	4951.0	4887.0	4844.9	4789.3	4752.3	4762.4	4777.5
5°	5053.8	5005.0	4876.9	4752.3	4634.3	4494.5	4381.7	4290.7	4221.6	4196.3	4191.3
7.5°	4917.4	4834.8	4651.2	4437.2	4236.8	4063.3	3862.8	3763.4	3647.2	3606.7	3593.3
10°	4834.8	4723.6	4465.9	4167.7	3866.2	3578.1	3360.8	3183.9	3023.9	2993.5	2978.4
12.5°	4811.2	4664.7	4317.6	3933.5	3532.6	3178.8	2857.1	2624.6	2469.6	2434.3	2382.0
15°	4797.8	4615.8	4179.5	3697.7	3189.0	2757.7	2419.1	2147.9	2006.4	1912.0	1913.7
17.5°	4786.0	4560.2	4024.5	3440.0	2892.5	2395.5	2021.5	1777.3	1647.5	1597.0	1592.0
20°	4769.1	4494.5	3845.9	3168.7	2553.9	2065.3	1726.7	1544.8	1457.2	1415.1	1413.4
22.5°	4762.4	4430.5	3670.8	2892.5	2254.0	1810.9	1531.3	1403.3	1347.7	1319.0	1319.0
25°	4779.2	4385.0	3487.1	2629.7	1987.8	1593.6	1396.5	1308.9	1276.9	1261.8	1256.7
27.5°	4831.4	4364.8	3305.2	2366.9	1743.6	1445.4	1305.6	1244.9	1221.3	1209.5	1211.2
30°	4930.8	4363.1	3126.6	2107.4	1561.6	1332.5	1233.1	1191.0	1172.5	1165.7	1164.1
32.5°	5090.9	4400.2	2951.4	1893.5	1408.3	1238.2	1165.7	1135.4	1127.0	1121.9	1120.3
35°	5362.1	4504.6	2777.9	1698.1	1290.4	1154.0	1101.7	1086.6	1074.8	1079.8	1081.5
37.5°	5727.7	4684.9	2612.8	1544.8	1201.1	1091.6	1047.8	1034.3	1027.6	1032.7	1037.7
40°	6217.9	4944.3	2474.7	1421.8	1137.1	1039.4	1000.7	988.9	982.1	990.5	992.2
42.5°	6758.6	5244.2	2360.1	1325.8	1084.9	995.6	958.5	945.1	940.0	945.1	946.7
45°	7314.5	5592.9	2301.2	1256.7	1041.1	963.6	924.8	909.7	897.9	894.5	899.6
47.5°	7862.0	5896.1	2299.5	1214.6	1005.7	935.0	892.8	876.0	860.8	852.4	850.7
50°	8308.5	6137.0	2339.9	1196.1	975.4	902.9	860.8	844.0	823.8	806.9	810.3
52.5°	8645.4	6293.7	2358.4	1187.6	958.5	869.3	827.1	812.0	788.4	766.5	766.5
55°	8862.7	6330.7	2313.0	1179.2	945.1	833.9	788.4	774.9	751.3	729.4	729.4
57.5°	8936.8	6216.2	2149.6	1159.0	931.6	803.6	749.6	737.9	719.3	697.4	694.1
60°	8765.0	5828.7	1863.2	1098.4	904.6	771.5	707.5	702.5	695.7	677.2	675.5
62.5°	8102.9	5006.6	1551.5	1019.2	859.1	737.9	668.8	677.2	682.3	672.2	670.5
65°	7001.2	4064.9	1325.8	909.7	798.5	690.7	626.7	648.6	662.0	662.0	658.7
67.5°	5678.8	3121.6	1116.9	815.3	722.7	626.7	579.5	596.3	606.5	603.1	611.5
70°	4036.3	2114.2	909.7	707.5	626.7	554.2	518.9	518.9	512.1	508.8	508.8
72.5°	1957.5	1207.9	737.9	591.3	534.0	473.4	444.7	432.9	419.5	417.8	409.4
73°	1635.7	1083.2	704.2	569.4	512.1	461.6	429.6	411.0	402.6	395.9	394.2
75°	995.6	822.1	587.9	480.1	436.3	397.6	368.9	352.1	343.7	338.6	336.9
77.5°	655.3	613.2	456.5	367.2	333.6	310.0	298.2	281.3	276.3	269.5	269.5
80°	488.5	468.3	326.8	259.4	239.2	219.0	215.6	212.3	198.8	190.4	187.0
82.5°	315.0	333.6	222.4	173.5	151.6	134.8	136.5	141.5	128.0	116.2	112.9
85°	224.1	240.9	134.8	79.2	64.0	55.6	62.3	55.6	57.3	45.5	37.1
87.5°	37.1	64.0	23.6	10.1	5.1	3.4	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)