

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: P453694

Luminaire Tested: **GALN-SA4D-727-U-T3R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453694
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-SA4D-727-U-T3R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K, 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: 26191 lumens
Efficiency: N/A
Efficacy: 106.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

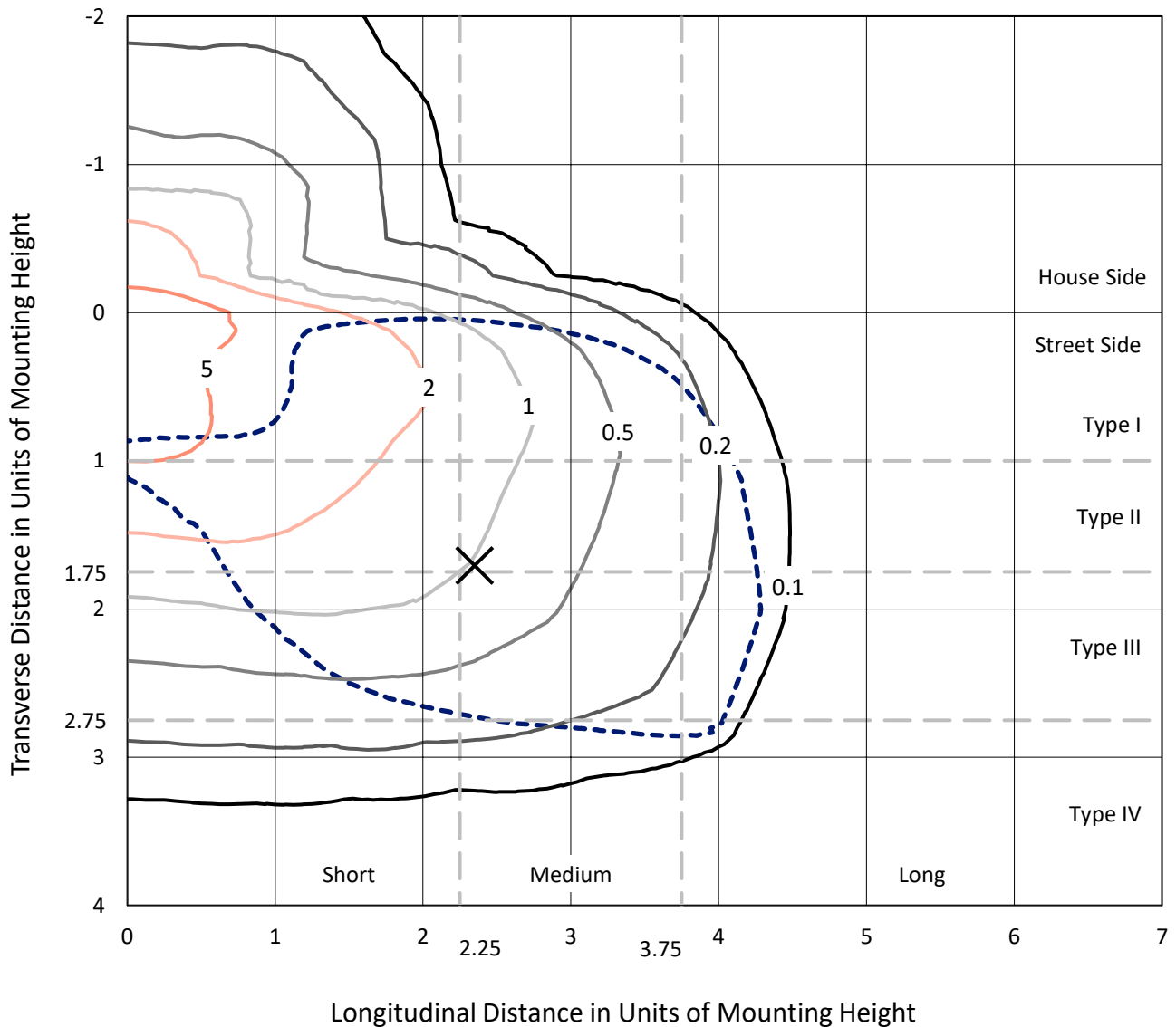
Input Watts (W): 245
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

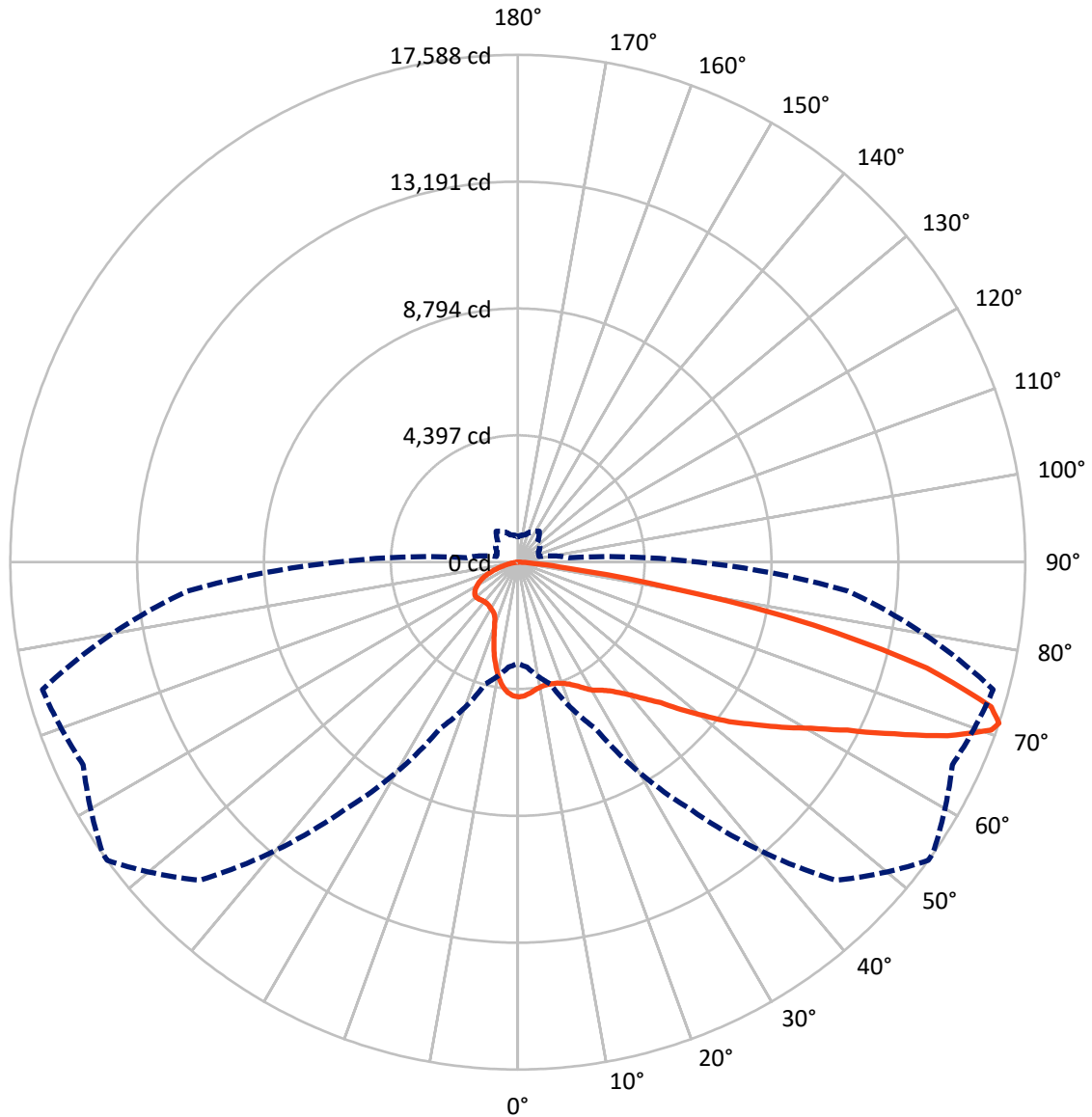
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.5 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	4728.6	0.0	4728.6
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	21462.4	0.0	21462.4
	% Fixture	81.9	0.0	81.9
Total	Lumens	26191.0	0.0	26191.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	416.4	1.6
10°-20°	1099.6	4.2
20°-30°	1830.8	7.0
30°-40°	2707.2	10.3
40°-50°	3813.2	14.6
50°-60°	5106.0	19.5
60°-70°	6435.7	24.6
70°-80°	4395.6	16.8
80°-90°	386.6	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°	26191.0	100.0
0°-180°	26191.0	100.0

Coefficient of Utilization



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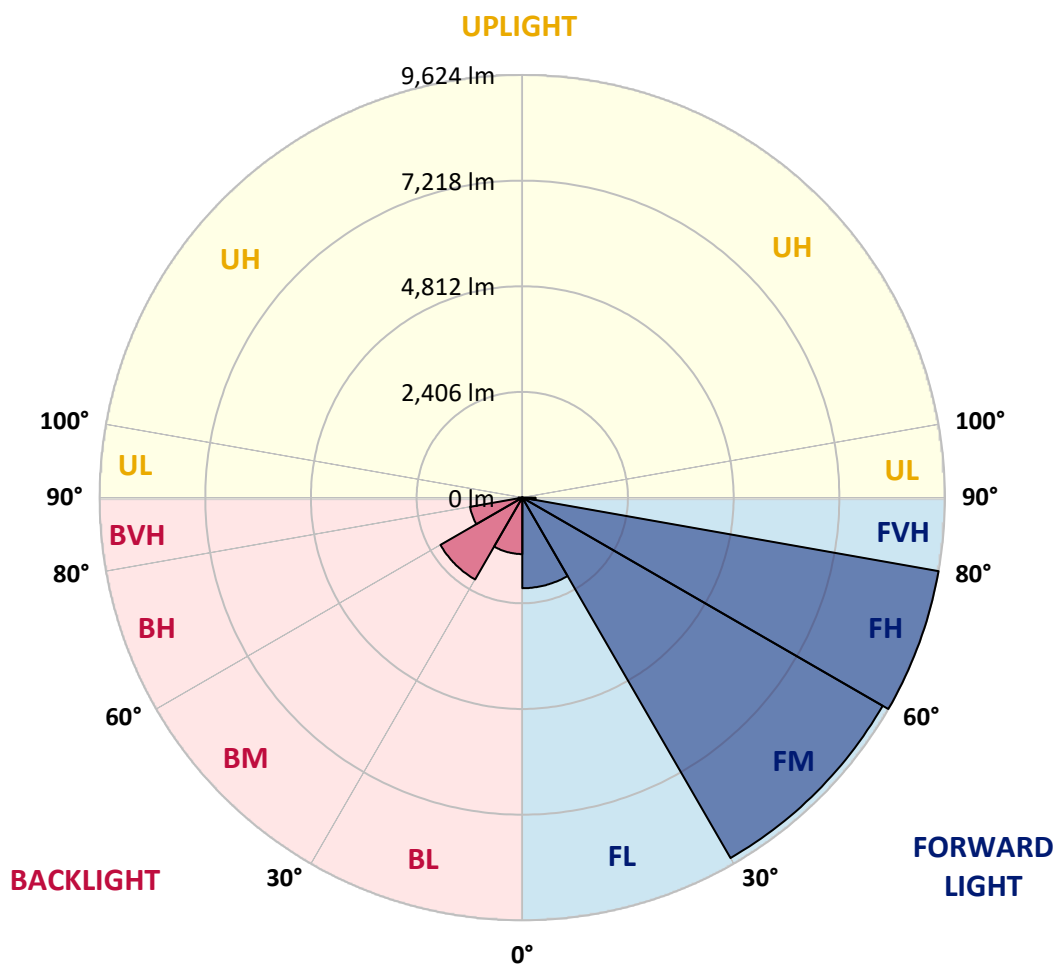
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2061.7	7.9			
FM	(30°-60°)	9475.0	36.2			
FH	(60°-80°)	9623.6	36.7			G4/12000
FVH	(80°-90°)	302.2	1.2			G3/500
BL	(0°-30°)	1285.2	4.9	B3/2500		
BM	(30°-60°)	2151.4	8.2	B2/2500		
BH	(60°-80°)	1207.7	4.6	B3/2500		G3/2500
BVH	(80°-90°)	84.4	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 IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	4672.9	4672.9	4672.9	4672.9	4672.9	4672.9	4672.9	4672.9	4672.9	4672.9	4672.9
2.5°	4514.4	4535.6	4541.3	4555.4	4585.1	4609.2	4633.2	4630.4	4664.4	4678.5	4691.3
5°	4313.5	4319.2	4340.4	4368.7	4421.0	4487.5	4552.6	4554.0	4637.5	4704.0	4736.5
7.5°	4166.4	4184.8	4198.9	4228.6	4283.8	4356.0	4459.2	4467.7	4616.3	4747.8	4817.2
10°	4070.2	4091.4	4107.0	4143.8	4198.9	4279.6	4391.3	4406.9	4600.7	4817.2	4938.8
12.5°	3982.5	4003.7	4017.8	4065.9	4138.1	4237.1	4363.0	4381.4	4606.4	4897.8	5071.8
15°	4036.2	4053.2	4047.6	4061.7	4109.8	4223.0	4374.4	4392.7	4627.6	4975.6	5203.4
17.5°	4275.3	4289.5	4242.8	4189.0	4166.4	4249.9	4409.7	4429.5	4670.0	5056.3	5337.8
20°	4627.6	4665.8	4563.9	4443.7	4334.7	4346.1	4483.3	4504.5	4729.5	5136.9	5475.0
22.5°	5086.0	5114.3	4989.8	4791.7	4590.8	4487.5	4593.6	4606.4	4818.6	5241.6	5625.0
25°	5625.0	5642.0	5469.4	5214.7	4924.7	4729.5	4745.0	4767.6	4965.7	5360.4	5758.0
27.5°	6148.4	6202.2	6002.7	5691.5	5309.5	4984.1	4953.0	4967.1	5125.6	5426.9	5849.9
30°	6769.5	6765.3	6554.5	6193.7	5704.2	5261.4	5149.6	5146.8	5211.9	5459.5	5916.4
32.5°	7264.7	7322.7	7116.1	6722.8	6155.5	5548.6	5285.4	5279.8	5278.4	5516.0	6015.4
35°	7827.7	7836.2	7646.6	7250.5	6643.6	5909.3	5475.0	5446.7	5414.2	5637.7	6149.8
37.5°	8331.4	8371.0	8197.0	7752.7	7123.2	6284.2	5735.3	5716.9	5617.9	5848.5	6364.9
40°	8724.7	8754.4	8649.7	8226.7	7595.7	6688.9	6066.4	6032.4	5912.2	6193.7	6652.1
42.5°	8853.4	8914.2	8955.3	8747.3	8139.0	7168.5	6473.8	6431.4	6339.4	6717.2	6983.1
45°	8863.3	8959.5	9176.0	9185.9	8685.0	7742.8	6949.2	6919.5	6912.4	7387.7	7448.6
47.5°	8788.3	8885.9	9249.5	9446.2	9171.7	8322.9	7635.3	7588.6	7592.9	8216.8	7970.6
50°	8607.2	8723.2	9164.6	9613.1	9552.3	8925.5	8359.7	8344.1	8431.8	9163.2	8512.4
52.5°	8266.3	8406.3	9076.9	9717.8	9835.2	9444.8	9183.0	9139.2	9361.3	10190.3	9105.2
55°	7322.7	7533.5	8755.8	9775.8	10104.0	9941.3	9924.4	10003.6	10297.8	11310.8	9757.4
57.5°	6830.3	6988.8	8058.3	9785.7	10443.6	10518.5	10790.2	10810.0	11324.9	12500.6	10494.5
60°	6561.5	6701.6	7676.3	9720.6	10917.5	11233.0	11675.8	11746.5	12328.0	13789.4	11258.4
62.5°	6326.7	6446.9	7447.2	9495.7	11452.3	12292.6	12823.1	12857.1	13466.8	15212.6	12012.5
65°	5773.5	5910.8	6986.0	9270.7	11913.5	13616.8	14345.4	14305.8	14679.3	16440.6	12485.0
67.5°	5028.0	5202.0	6124.4	8494.1	12141.2	15064.1	16060.0	16010.5	15876.1	17245.6	12620.8
70°	4075.8	4169.2	5022.3	7151.5	11231.6	15823.8	17413.9	17361.6	16617.5	17351.7	11978.5
71°	3507.1	3652.8	4372.9	6352.1	10474.7	15591.8	17588.0	17573.8	16618.9	17058.8	11494.7
72.5°	2737.5	2826.6	3463.3	4921.9	8902.9	14273.2	17157.9	17211.6	16258.1	16245.4	10497.3
75°	1731.6	1771.2	2173.0	2897.4	4885.1	10108.3	14646.7	14792.4	14435.9	13297.1	7806.5
77.5°	1005.9	1056.8	1301.6	1707.6	2110.8	5486.3	10480.3	10638.8	10030.5	7321.2	3195.9
80°	585.7	642.3	857.3	991.7	969.1	2035.8	5336.4	5606.6	4343.2	1849.1	896.9
82.5°	325.4	363.6	602.7	604.1	516.4	664.9	1679.3	1757.1	1239.3	745.6	366.4
85°	236.3	267.4	389.1	352.3	247.6	285.8	584.3	612.6	500.8	314.1	118.8
87.5°	83.5	118.8	213.6	169.8	67.9	59.4	168.4	137.2	127.3	87.7	26.9
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°	4672.9	4672.9	4672.9	4672.9	4672.9	4672.9	4672.9	4672.9	4672.9	4672.9	4672.9
2.5°	4698.3	4701.2	4687.0	4661.5	4636.1	4603.5	4566.8	4538.5	4525.7	4524.3	4522.9
5°	4749.3	4756.3	4702.6	4623.3	4535.6	4428.1	4336.2	4231.5	4204.6	4162.1	4174.9
7.5°	4831.3	4827.1	4721.0	4552.6	4347.5	4119.7	3927.3	3815.5	3699.5	3667.0	3668.4
10°	4948.7	4921.9	4721.0	4408.3	4065.9	3727.8	3459.0	3289.3	3197.3	3120.9	3092.6
12.5°	5073.2	5005.3	4675.7	4206.0	3703.8	3289.3	3000.6	2771.5	2712.0	2649.8	2651.2
15°	5192.1	5078.9	4586.6	3921.6	3313.3	2821.0	2540.9	2403.6	2385.2	2392.3	2390.9
17.5°	5299.6	5131.2	4450.7	3604.7	2857.8	2419.2	2270.6	2280.5	2330.1	2365.4	2369.7
20°	5408.5	5162.4	4248.4	3180.3	2427.7	2175.9	2181.5	2259.3	2334.3	2382.4	2389.5
22.5°	5511.8	5176.5	4010.8	2770.0	2116.4	2072.6	2156.1	2239.5	2313.1	2359.8	2366.8
25°	5579.7	5144.0	3674.1	2341.4	1963.6	2035.8	2123.5	2194.3	2256.5	2304.6	2315.9
27.5°	5598.1	5039.3	3256.7	1994.8	1892.9	2000.4	2081.1	2133.4	2181.5	2226.8	2235.3
30°	5588.2	4885.1	2798.3	1791.1	1851.9	1959.4	2021.7	2059.9	2117.9	2153.2	2160.3
32.5°	5572.6	4705.4	2320.2	1682.1	1817.9	1921.2	1958.0	1991.9	1990.5	1976.4	1986.3
35°	5578.3	4490.4	1932.5	1617.0	1788.2	1892.9	1924.0	1881.6	1759.9	1754.3	1748.6
37.5°	5608.0	4278.2	1651.0	1571.8	1772.7	1888.7	1905.6	1710.4	1602.9	1553.4	1540.6
40°	5684.4	4030.6	1465.7	1537.8	1771.2	1921.2	1822.2	1624.1	1417.6	1321.4	1314.3
42.5°	5786.3	3787.2	1352.5	1516.6	1788.2	1970.7	1788.2	1502.4	1277.5	1220.9	1212.4
45°	5937.6	3508.5	1290.2	1506.7	1813.7	1989.1	1776.9	1413.3	1220.9	1175.6	1175.6
47.5°	6108.8	3242.6	1256.3	1499.6	1846.2	1976.4	1676.5	1385.0	1194.0	1199.7	1226.6
50°	6278.6	3012.0	1230.8	1484.1	1874.5	1969.3	1635.4	1383.6	1201.1	1273.3	1321.4
52.5°	6475.2	2849.3	1199.7	1458.6	1874.5	1924.0	1622.7	1411.9	1220.9	1242.1	1263.4
55°	6712.9	2798.3	1160.1	1403.4	1840.6	1810.9	1615.6	1452.9	1235.1	1185.5	1194.0
57.5°	7027.0	2880.4	1121.9	1334.1	1762.8	1693.4	1612.8	1464.2	1202.5	1161.5	1153.0
60°	7392.0	3043.1	1110.6	1263.4	1656.7	1593.0	1595.8	1431.7	1157.3	1114.8	1121.9
62.5°	7648.0	3140.7	1103.5	1209.6	1540.6	1482.6	1554.8	1392.1	1137.4	1100.7	1107.7
65°	7648.0	3021.9	1038.4	1127.5	1390.7	1349.7	1505.3	1342.6	1112.0	1069.5	1062.5
67.5°	7358.0	2675.3	939.4	1004.5	1225.2	1198.3	1436.0	1283.2	1073.8	1041.2	1024.3
70°	6602.6	2028.7	814.9	860.2	1015.8	1039.8	1346.8	1202.5	1010.1	970.5	945.0
71°	6270.1	1767.0	762.5	786.6	935.1	970.5	1304.4	1168.6	981.8	925.2	880.0
72.5°	5629.2	1488.3	683.3	693.2	799.3	863.0	1215.3	1103.5	928.1	847.4	796.5
75°	4276.7	1086.5	550.3	544.7	591.4	684.7	1028.5	983.2	813.5	704.5	674.8
77.5°	1847.6	591.4	411.7	415.9	401.8	519.2	809.2	844.6	697.5	573.0	546.1
80°	560.2	341.0	281.5	287.2	268.8	348.0	570.1	662.1	560.2	445.6	408.9
82.5°	287.2	203.7	192.4	189.6	171.2	196.6	345.2	452.7	400.4	278.7	246.2
85°	124.5	108.9	94.8	92.0	80.6	70.7	123.1	226.4	212.2	155.6	148.5
87.5°	31.1	28.3	18.4	17.0	9.9	1.4	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)