

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: P458459

Luminaire Tested: **GALN-SA9D-827-U-AFL**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P458459
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-24)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA9D-827-U-AFL
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 52059 lumens
Efficiency: N/A
Efficacy: 94.3 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G4

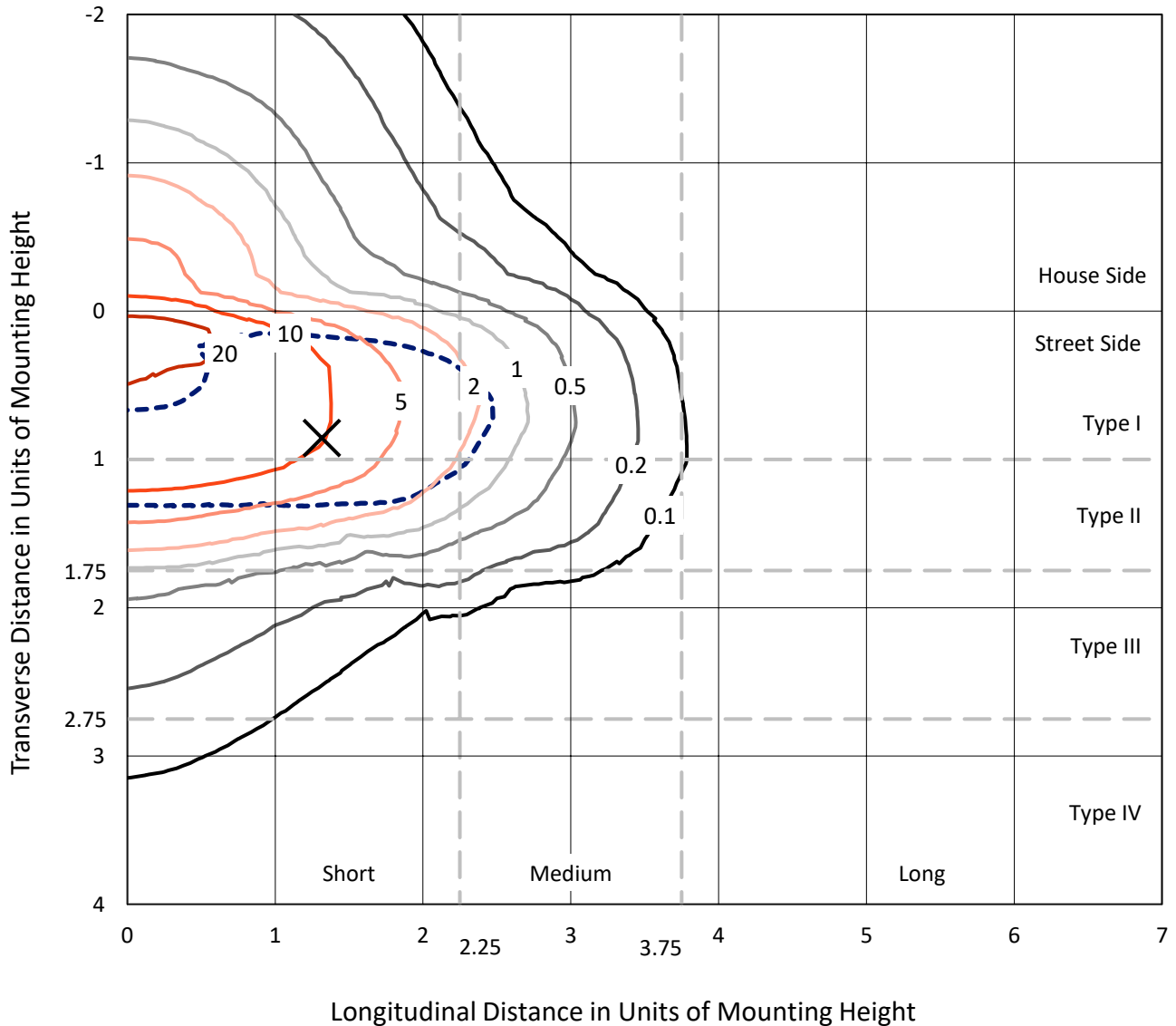
Input Watts (W): 552
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

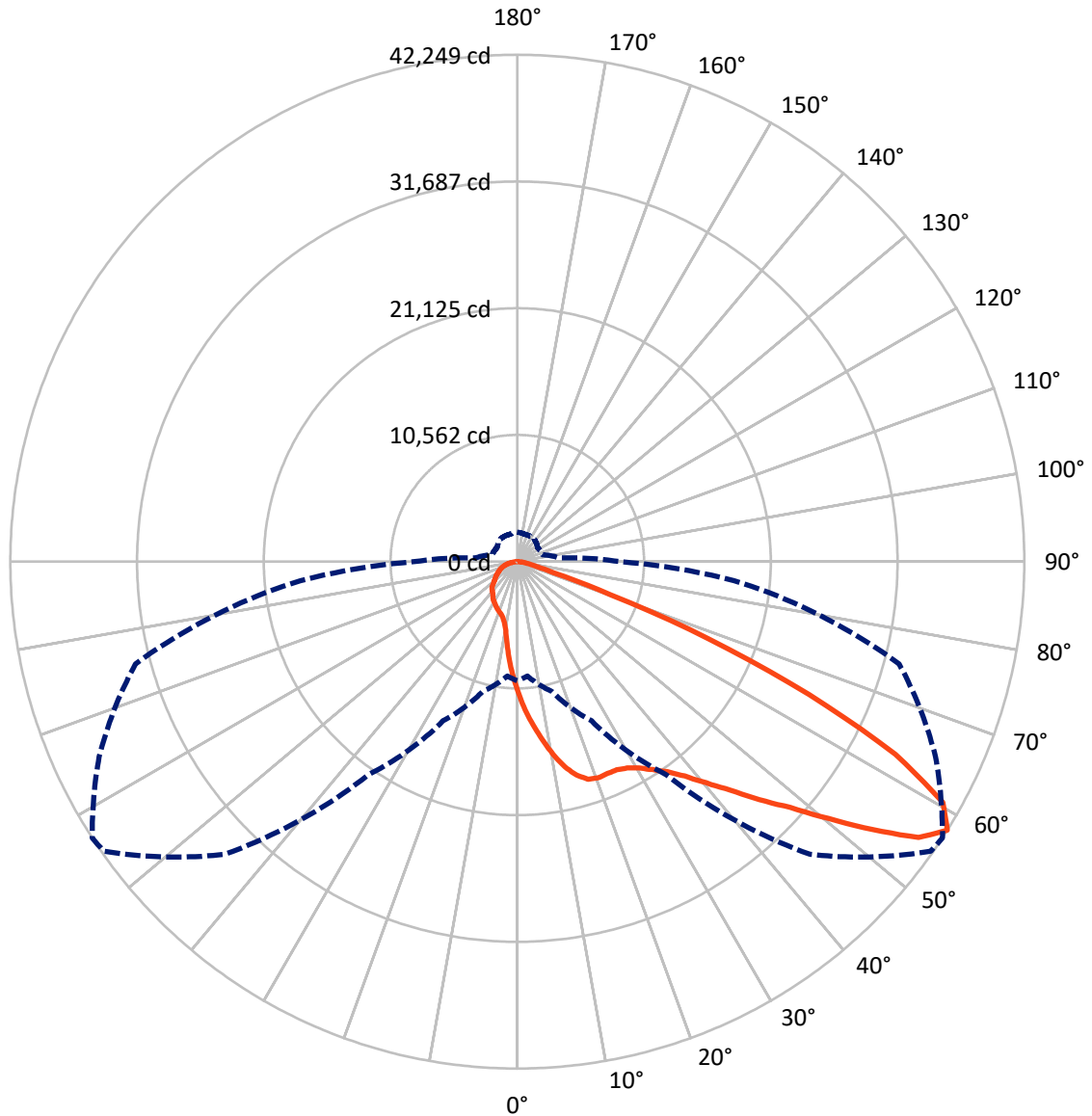
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 26.6 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral - - - Horizontal Cone Through 57.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7916.7	0.0	7916.7
	% Fixture	15.2	0.0	15.2
Street Side	Lumens	44142.3	0.0	44142.3
	% Fixture	84.8	0.0	84.8
Total	Lumens	52059.0	0.0	52059.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1051.2	2.0
10°-20°	3097.8	6.0
20°-30°	5144.0	9.9
30°-40°	7748.3	14.9
40°-50°	11633.3	22.3
50°-60°	13039.5	25.0
60°-70°	7631.4	14.7
70°-80°	2257.3	4.3
80°-90°	456.3	0.9
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°	52059.0	100.0
0°-180°	52059.0	100.0

Coefficient of Utilization



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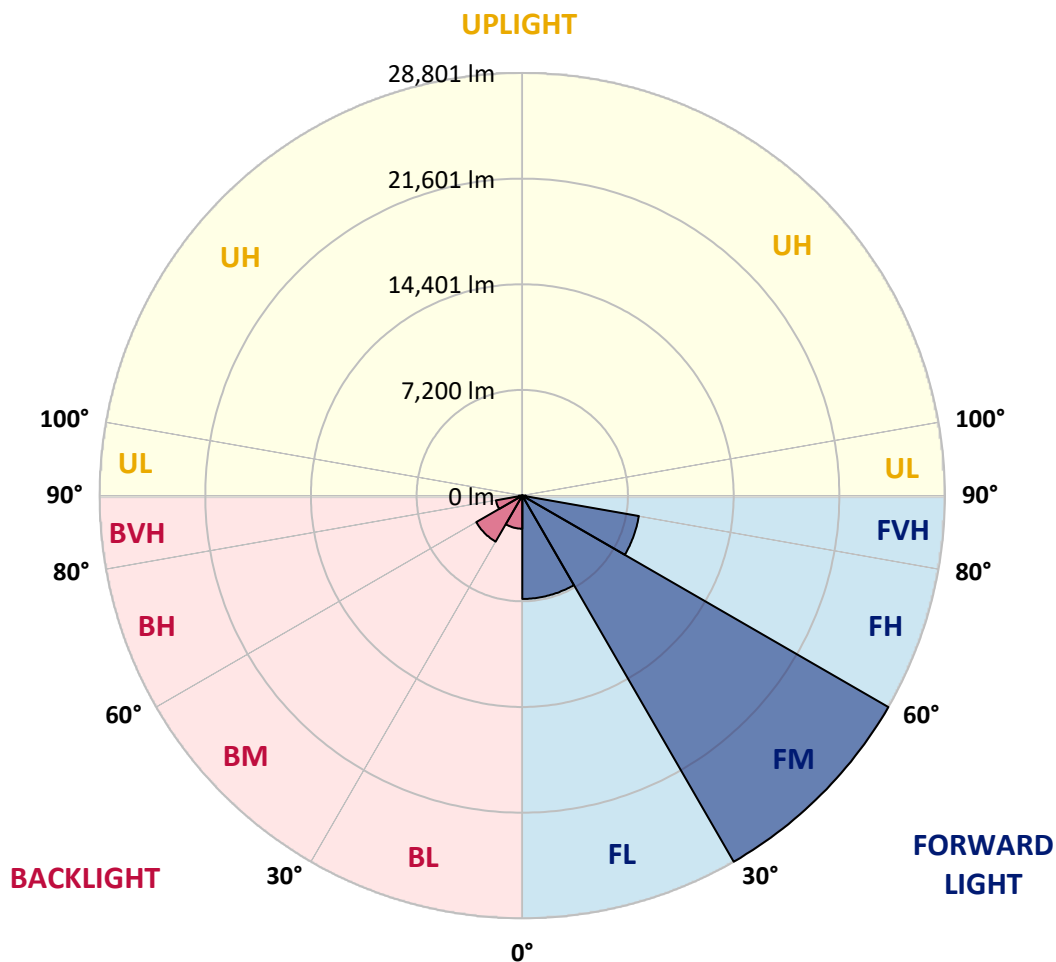
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	7037.2	13.5			
FM	(30°-60°)	28801.3	55.3			
FH	(60°-80°)	8067.1	15.5			G4/12000
FVH	(80°-90°)	236.7	0.5			G3/500
BL	(0°-30°)	2255.7	4.3	B3/2500		
BM	(30°-60°)	3619.8	7.0	B3/5000		
BH	(60°-80°)	1821.6	3.5	B3/2500		G3/2500
BVH	(80°-90°)	219.5	0.4			G2/225
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°	57°	65°	75°	85°
0°	10937.0	10937.0	10937.0	10937.0	10937.0	10937.0	10937.0	10937.0	10937.0	10937.0	10937.0
2.5°	13590.0	13441.9	13325.0	13222.4	13088.5	12726.6	12364.7	12359.0	12071.2	11626.6	11170.7
5°	15804.2	15604.7	15630.4	15311.2	14992.1	14467.7	13701.2	13661.3	13048.6	12216.5	11370.1
7.5°	17246.2	17249.0	17169.2	16986.8	16642.0	16046.4	15177.3	14980.7	14128.6	12866.2	11598.1
10°	17172.1	17249.0	17382.9	17539.7	17645.1	17351.6	16559.4	16320.0	15211.5	13652.7	11851.7
12.5°	16186.1	16305.8	16496.7	16889.9	17525.4	18009.9	17739.1	17545.4	16465.3	14436.4	12131.0
15°	15570.5	15641.8	15747.2	16012.2	16696.2	17856.0	18557.0	18454.4	17648.0	15322.6	12444.5
17.5°	15382.5	15453.7	15487.9	15650.3	16137.6	17325.9	18879.0	19061.4	18696.6	16137.6	12760.8
20°	15570.5	15604.7	15604.7	15701.6	16083.5	17015.3	18864.8	19232.4	19557.2	17115.1	13057.1
22.5°	16063.5	16077.8	16057.8	16092.0	16377.0	17100.8	18730.8	19186.8	20252.5	17944.3	13288.0
25°	16864.3	16887.1	16756.0	16676.2	16884.2	17477.0	18804.9	19223.8	20796.8	18736.5	13441.9
27.5°	17773.3	17801.8	17642.3	17457.0	17553.9	17941.5	19095.6	19471.7	21204.3	19517.3	13538.7
30°	18887.6	18899.0	18631.1	18408.8	18346.1	18633.9	19591.4	19941.9	21711.6	20437.8	13684.1
32.5°	20027.4	20112.9	19768.1	19454.6	19349.2	19437.5	20323.8	20662.9	22315.7	21426.6	13917.7
35°	21577.6	21591.9	21178.7	20796.8	20449.2	20563.2	21261.3	21506.4	23150.6	22569.3	14248.3
37.5°	23512.6	23643.6	23073.7	22361.3	21933.8	21768.6	22395.5	22663.4	24321.9	23971.4	14747.0
40°	25661.2	25709.6	25222.4	24777.8	23997.0	23518.3	23951.4	24242.1	25766.6	25644.1	15325.5
42.5°	27011.9	27117.4	27154.4	27108.8	26521.8	25718.2	25883.5	26020.3	27476.4	27214.3	15918.2
45°	27467.9	27624.6	28154.7	29277.4	29340.1	28547.9	28163.2	28294.3	29340.1	28798.7	16485.3
47.5°	26712.7	26980.6	27958.0	30260.6	31984.6	32044.4	30884.6	30596.8	31038.5	30112.4	16895.6
50°	24760.7	24817.7	26313.8	29647.9	33224.2	35387.1	34187.4	33651.7	32651.4	31084.1	17177.8
52.5°	21740.1	21805.6	23059.5	26801.1	32460.5	37723.8	38051.5	37094.0	34290.0	31839.3	17363.0
55°	16137.6	16516.6	17895.9	21512.1	28841.4	37504.4	41123.5	40579.2	36270.5	32437.7	17653.7
57.5°	9922.5	9574.9	11210.6	14635.9	21691.6	34489.5	42072.4	42249.1	38450.5	32939.2	18140.9
60°	4565.2	4633.5	5308.9	7548.8	13222.4	26980.6	39627.4	40744.5	39655.9	32922.1	18263.5
62.5°	3146.0	3083.3	2912.4	3314.2	6029.9	17063.8	33472.1	35364.3	37239.4	31899.1	17776.2
65°	2812.6	2749.9	2419.4	2308.2	2769.9	7437.6	24333.3	26721.3	31354.8	29317.3	16562.2
67.5°	2627.4	2541.9	2199.9	1983.4	1977.7	2960.8	14348.0	17223.4	23256.1	24786.4	14350.9
70°	2433.6	2365.2	2026.1	1786.7	1684.1	1860.8	6306.3	8255.5	15100.4	17861.7	11179.2
72.5°	2239.8	2160.0	1855.1	1598.7	1464.7	1393.5	2416.5	3143.2	8531.9	10709.0	6853.4
75°	1957.7	1917.8	1658.5	1447.6	1302.3	1125.6	1533.1	1749.7	4080.7	4918.5	3439.5
77.5°	1712.6	1669.9	1473.3	1265.2	1159.8	914.7	1088.6	1188.3	1721.2	1994.8	1553.1
80°	1253.9	1296.6	1242.5	1117.1	1034.4	718.1	732.4	815.0	1023.0	1131.3	948.9
82.5°	795.1	874.8	957.5	860.6	783.7	567.1	507.2	538.6	698.2	740.9	421.7
85°	333.4	339.1	555.7	524.3	447.4	336.3	304.9	322.0	373.3	390.4	196.6
87.5°	128.2	125.4	196.6	182.4	139.6	96.9	96.9	108.3	148.2	136.8	62.7
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°	10937.0	10937.0	10937.0	10937.0	10937.0	10937.0	10937.0	10937.0	10937.0	10937.0	10937.0
2.5°	10974.0	10771.7	10369.9	9871.2	9506.5	9096.1	8734.2	8474.9	8378.0	8332.4	8246.9
5°	10965.5	10566.5	9734.4	8862.4	8161.4	7443.3	6836.3	6443.1	6408.9	6146.7	6121.1
7.5°	10968.3	10358.5	9033.4	7751.1	6682.5	5947.2	5445.7	5314.6	5157.9	5118.0	5137.9
10°	10976.9	10093.5	8281.1	6651.1	5616.7	5135.1	4947.0	4895.7	4901.4	4918.5	4921.4
12.5°	10988.3	9837.0	7500.3	5816.2	5018.3	4818.8	4798.8	4844.4	4892.9	4929.9	4938.5
15°	11002.5	9543.5	6739.4	5143.6	4719.0	4701.9	4767.5	4844.4	4912.8	4967.0	4975.5
17.5°	10985.4	9201.6	6101.1	4730.4	4553.8	4636.4	4744.7	4841.6	4904.3	4955.6	4961.3
20°	10945.5	8819.7	5485.6	4439.8	4451.2	4585.1	4701.9	4793.1	4861.5	4887.2	4907.1
22.5°	10791.7	8363.8	4949.9	4214.6	4328.6	4513.9	4653.5	4707.6	4630.7	4576.6	4590.8
25°	10529.5	7771.0	4451.2	4032.3	4217.5	4414.1	4556.6	4425.5	4362.8	4340.0	4351.4
27.5°	10201.8	7121.3	4075.0	3841.3	4075.0	4303.0	4263.1	4240.3	4211.8	4174.8	4183.3
30°	9848.4	6485.8	3755.9	3693.2	3921.1	4052.2	4069.3	4106.4	4075.0	4018.0	4040.8
32.5°	9520.7	5887.4	3513.6	3567.8	3812.8	3792.9	3921.1	3963.9	3818.5	3627.6	3636.2
35°	9241.5	5331.7	3331.3	3445.2	3627.6	3636.2	3764.4	3616.2	3459.5	3368.3	3374.0
37.5°	9030.6	4898.6	3211.6	3339.8	3391.1	3499.4	3431.0	3354.1	3334.1	3271.4	3274.3
40°	8905.2	4519.6	3134.6	3257.2	3248.6	3322.7	3103.3	3180.2	3208.7	3188.8	3191.6
42.5°	8779.8	4251.7	3054.8	3143.2	3140.3	2995.0	2946.5	3012.1	3086.2	3094.7	3089.0
45°	8680.1	4043.7	2972.2	2969.3	3026.3	2798.4	2784.1	2824.0	2929.5	2980.7	2977.9
47.5°	8568.9	3869.8	2846.8	2767.0	2784.1	2675.8	2653.0	2670.1	2798.4	2881.0	2903.8
50°	8429.3	3696.0	2690.1	2581.8	2510.6	2561.8	2567.5	2570.4	2698.6	2792.7	2812.6
52.5°	8318.2	3564.9	2510.6	2430.8	2345.3	2459.3	2502.0	2507.7	2584.6	2661.6	2675.8
55°	8383.7	3490.8	2333.9	2276.9	2199.9	2353.8	2436.5	2447.9	2465.0	2522.0	2530.5
57.5°	8580.3	3507.9	2191.4	2117.3	2060.3	2228.4	2368.1	2376.6	2365.2	2433.6	2445.0
60°	8640.2	3499.4	2086.0	1940.6	1906.4	2094.5	2268.3	2285.4	2282.6	2382.3	2402.3
62.5°	8389.4	3391.1	1980.5	1792.4	1769.6	1957.7	2128.7	2197.1	2211.3	2353.8	2379.5
65°	7799.5	3168.8	1840.9	1635.7	1635.7	1812.4	1994.8	2088.8	2128.7	2319.6	2348.1
67.5°	7021.6	2906.7	1698.4	1501.8	1496.1	1672.8	1852.3	1949.2	2011.9	2271.2	2288.3
70°	5827.6	2553.3	1521.7	1356.4	1356.4	1516.0	1678.5	1795.3	1886.5	2180.0	2180.0
72.5°	3992.4	2123.0	1308.0	1191.2	1194.0	1342.2	1507.5	1638.6	1746.8	1997.6	2003.3
75°	2524.8	1658.5	1074.3	1014.5	1025.9	1165.5	1336.5	1473.3	1689.8	1974.8	1983.4
77.5°	1342.2	1165.5	854.9	840.7	854.9	983.1	1174.1	1362.1	1695.5	1712.6	1684.1
80°	869.1	826.4	675.4	646.9	652.6	792.2	1045.8	1293.7	1362.1	1379.2	1316.5
82.5°	473.0	524.3	478.7	450.2	450.2	618.4	891.9	1028.7	977.4	812.2	775.1
85°	202.3	245.1	247.9	216.6	208.0	381.9	598.4	561.4	521.5	498.7	493.0
87.5°	57.0	79.8	79.8	59.8	45.6	105.4	119.7	34.2	0.0	2.8	5.7
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)