

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: P451499

Luminaire Tested: **GALN-SA2B-827-U-AFL**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P451499  
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-SA2B-827-U-AFL  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(2) 80 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8494 lumens  
Efficiency: N/A  
Efficacy: 103.6 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G1

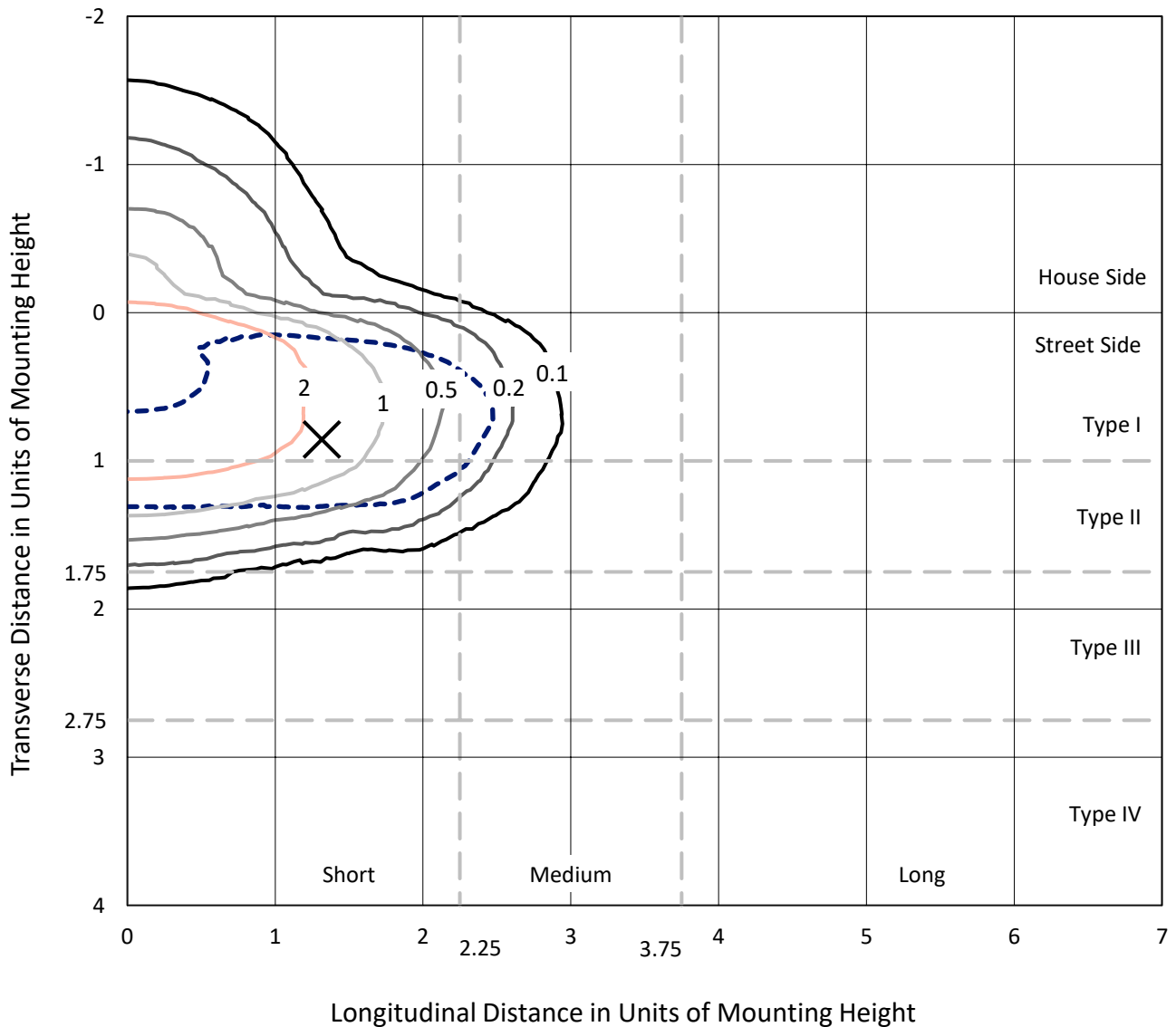
Input Watts (W): 82  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

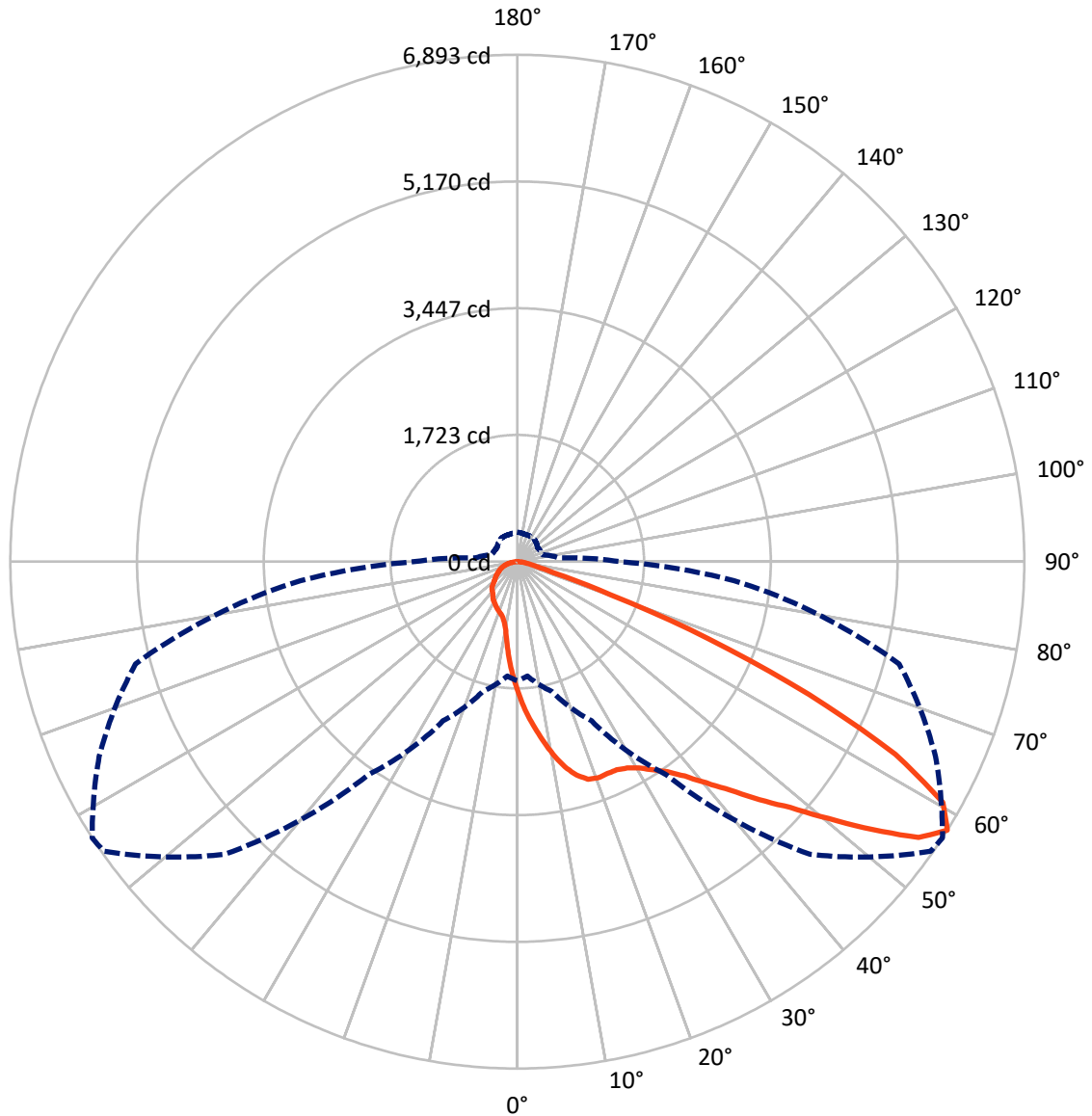
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.3 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
<b>House Side</b>	Lumens	1291.7	0.0	1291.7
	% Fixture	15.2	0.0	15.2
<b>Street Side</b>	Lumens	7202.3	0.0	7202.3
	% Fixture	84.8	0.0	84.8
<b>Total</b>	Lumens	8494.0	0.0	8494.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	171.5	2.0
10°-20°	505.4	6.0
20°-30°	839.3	9.9
30°-40°	1264.2	14.9
40°-50°	1898.1	22.3
50°-60°	2127.5	25.0
60°-70°	1245.1	14.7
70°-80°	368.3	4.3
80°-90°	74.4	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°	8494.0	100.0
0°-180°	8494.0	100.0

**Coefficient of Utilization**



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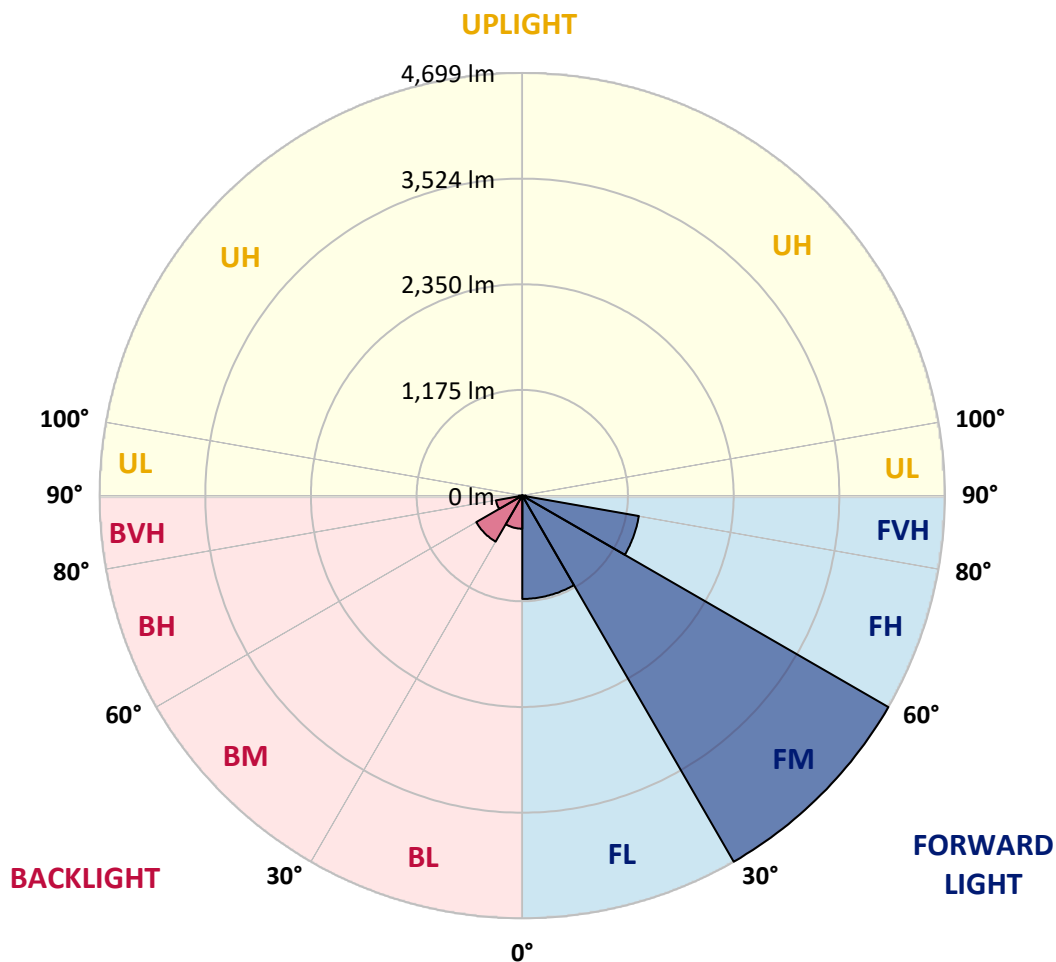
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1148.2	13.5			
FM (30°-60°)	4699.2	55.3			
FH (60°-80°)	1316.2	15.5			G1/1800
FVH (80°-90°)	38.6	0.5			G1/100
BL (0°-30°)	368.1	4.3	B1/500		
BM (30°-60°)	590.6	7.0	B1/1000		
BH (60°-80°)	297.2	3.5	B1/500		G1/500
BVH (80°-90°)	35.8	0.4			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	1784.5	1784.5	1784.5	1784.5	1784.5	1784.5	1784.5	1784.5	1784.5	1784.5	1784.5
2.5°	2217.4	2193.2	2174.1	2157.4	2135.5	2076.5	2017.4	2016.5	1969.5	1897.0	1822.6
5°	2578.6	2546.1	2550.3	2498.2	2446.1	2360.6	2235.5	2229.0	2129.0	1993.3	1855.2
7.5°	2813.9	2814.4	2801.3	2771.6	2715.3	2618.2	2476.3	2444.3	2305.2	2099.3	1892.4
10°	2801.8	2814.4	2836.2	2861.8	2879.0	2831.1	2701.8	2662.8	2481.9	2227.6	1933.7
12.5°	2640.9	2660.5	2691.6	2755.8	2859.5	2938.5	2894.3	2862.7	2686.5	2355.5	1979.3
15°	2540.5	2552.1	2569.3	2612.6	2724.2	2913.4	3027.8	3011.0	2879.5	2500.1	2030.5
17.5°	2509.8	2521.4	2527.0	2553.5	2633.0	2826.9	3080.3	3110.1	3050.6	2633.0	2082.1
20°	2540.5	2546.1	2546.1	2561.9	2624.2	2776.2	3078.0	3138.0	3191.0	2792.5	2130.4
22.5°	2620.9	2623.3	2620.0	2625.6	2672.1	2790.2	3056.1	3130.5	3304.4	2927.8	2168.1
25°	2751.6	2755.3	2733.9	2720.9	2754.9	2851.6	3068.2	3136.6	3393.2	3057.1	2193.2
27.5°	2899.9	2904.6	2878.5	2848.3	2864.1	2927.3	3115.7	3177.0	3459.7	3184.5	2209.0
30°	3081.7	3083.6	3039.9	3003.6	2993.4	3040.3	3196.6	3253.7	3542.5	3334.6	2232.7
32.5°	3267.7	3281.6	3225.4	3174.2	3157.0	3171.4	3316.0	3371.4	3641.1	3496.0	2270.8
35°	3520.6	3523.0	3455.5	3393.2	3336.5	3355.1	3469.0	3509.0	3777.3	3682.4	2324.8
37.5°	3836.3	3857.7	3764.7	3648.5	3578.7	3551.8	3654.1	3697.8	3968.4	3911.2	2406.1
40°	4186.9	4194.8	4115.3	4042.8	3915.4	3837.3	3907.9	3955.4	4204.1	4184.1	2500.5
42.5°	4407.3	4424.5	4430.5	4423.1	4327.3	4196.2	4223.2	4245.5	4483.1	4440.3	2597.2
45°	4481.7	4507.3	4593.7	4776.9	4787.2	4657.9	4595.1	4616.5	4787.2	4698.8	2689.8
47.5°	4358.5	4402.2	4561.7	4937.3	5218.6	5228.4	5039.2	4992.2	5064.3	4913.2	2756.7
50°	4040.0	4049.3	4293.4	4837.4	5420.9	5773.8	5578.0	5490.6	5327.4	5071.7	2802.7
52.5°	3547.1	3557.8	3762.4	4372.9	5296.3	6155.1	6208.5	6052.3	5594.8	5194.9	2833.0
55°	2633.0	2694.9	2919.9	3509.9	4705.8	6119.3	6709.7	6620.9	5917.9	5292.6	2880.4
57.5°	1619.0	1562.2	1829.1	2388.0	3539.2	5627.3	6864.6	6893.4	6273.6	5374.4	2959.9
60°	744.9	756.0	866.2	1231.7	2157.4	4402.2	6465.6	6647.9	6470.3	5371.6	2979.9
62.5°	513.3	503.1	475.2	540.7	983.8	2784.1	5461.3	5770.1	6076.0	5204.7	2900.4
65°	458.9	448.7	394.7	376.6	451.9	1213.5	3970.2	4359.9	5115.9	4783.4	2702.3
67.5°	428.7	414.7	358.9	323.6	322.7	483.1	2341.0	2810.2	3794.5	4044.2	2341.5
70°	397.1	385.9	330.6	291.5	274.8	303.6	1028.9	1347.0	2463.8	2914.3	1824.0
72.5°	365.5	352.4	302.7	260.8	239.0	227.4	394.3	512.8	1392.1	1747.3	1118.2
75°	319.4	312.9	270.6	236.2	212.5	183.7	250.1	285.5	665.8	802.5	561.2
77.5°	279.4	272.5	240.4	206.4	189.2	149.3	177.6	193.9	280.8	325.5	253.4
80°	204.6	211.6	202.7	182.3	168.8	117.2	119.5	133.0	166.9	184.6	154.8
82.5°	129.7	142.7	156.2	140.4	127.9	92.5	82.8	87.9	113.9	120.9	68.8
85°	54.4	55.3	90.7	85.6	73.0	54.9	49.8	52.5	60.9	63.7	32.1
87.5°	20.9	20.5	32.1	29.8	22.8	15.8	15.8	17.7	24.2	22.3	10.2
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°	1784.5	1784.5	1784.5	1784.5	1784.5	1784.5	1784.5	1784.5	1784.5	1784.5	1784.5
2.5°	1790.5	1757.5	1692.0	1610.6	1551.1	1484.1	1425.1	1382.8	1367.0	1359.5	1345.6
5°	1789.1	1724.0	1588.3	1446.0	1331.6	1214.5	1115.4	1051.3	1045.7	1002.9	998.7
7.5°	1789.6	1690.1	1473.9	1264.7	1090.3	970.4	888.5	867.1	841.6	835.1	838.3
10°	1791.0	1646.9	1351.2	1085.2	916.4	837.8	807.2	798.8	799.7	802.5	803.0
12.5°	1792.9	1605.0	1223.8	949.0	818.8	786.2	783.0	790.4	798.3	804.4	805.8
15°	1795.2	1557.1	1099.6	839.2	770.0	767.2	777.9	790.4	801.6	810.4	811.8
17.5°	1792.4	1501.3	995.5	771.8	743.0	756.5	774.1	790.0	800.2	808.6	809.5
20°	1785.9	1439.0	895.0	724.4	726.3	748.1	767.2	782.1	793.2	797.4	800.7
22.5°	1760.8	1364.6	807.6	687.7	706.3	736.5	759.3	768.1	755.5	746.7	749.0
25°	1718.0	1267.9	726.3	657.9	688.1	720.2	743.5	722.1	711.8	708.1	710.0
27.5°	1664.5	1161.9	664.9	626.8	664.9	702.1	695.6	691.9	687.2	681.2	682.6
30°	1606.9	1058.2	612.8	602.6	639.8	661.2	664.0	670.0	664.9	655.6	659.3
32.5°	1553.4	960.6	573.3	582.1	622.1	618.9	639.8	646.8	623.0	591.9	593.3
35°	1507.8	869.9	543.5	562.1	591.9	593.3	614.2	590.0	564.5	549.6	550.5
37.5°	1473.4	799.3	524.0	544.9	553.3	571.0	559.8	547.3	544.0	533.8	534.2
40°	1453.0	737.4	511.4	531.4	530.0	542.1	506.3	518.9	523.5	520.3	520.7
42.5°	1432.5	693.7	498.4	512.8	512.4	488.7	480.8	491.5	503.5	504.9	504.0
45°	1416.2	659.8	484.9	484.5	493.8	456.6	454.3	460.8	478.0	486.3	485.9
47.5°	1398.1	631.4	464.5	451.5	454.3	436.6	432.9	435.7	456.6	470.1	473.8
50°	1375.3	603.0	438.9	421.2	409.6	418.0	418.9	419.4	440.3	455.7	458.9
52.5°	1357.2	581.7	409.6	396.6	382.7	401.3	408.2	409.2	421.7	434.3	436.6
55°	1367.9	569.6	380.8	371.5	358.9	384.1	397.5	399.4	402.2	411.5	412.9
57.5°	1400.0	572.4	357.5	345.5	336.2	363.6	386.4	387.8	385.9	397.1	398.9
60°	1409.7	571.0	340.3	316.6	311.1	341.7	370.1	372.9	372.4	388.7	392.0
62.5°	1368.8	553.3	323.1	292.5	288.7	319.4	347.3	358.5	360.8	384.1	388.2
65°	1272.6	517.0	300.4	266.9	266.9	295.7	325.5	340.8	347.3	378.5	383.1
67.5°	1145.6	474.3	277.1	245.0	244.1	272.9	302.2	318.0	328.3	370.6	373.4
70°	950.8	416.6	248.3	221.3	221.3	247.4	273.9	292.9	307.8	355.7	355.7
72.5°	651.4	346.4	213.4	194.4	194.8	219.0	246.0	267.3	285.0	325.9	326.9
75°	411.9	270.6	175.3	165.5	167.4	190.2	218.1	240.4	275.7	322.2	323.6
77.5°	219.0	190.2	139.5	137.2	139.5	160.4	191.6	222.2	276.6	279.4	274.8
80°	141.8	134.8	110.2	105.5	106.5	129.3	170.6	211.1	222.2	225.0	214.8
82.5°	77.2	85.6	78.1	73.5	73.5	100.9	145.5	167.8	159.5	132.5	126.5
85°	33.0	40.0	40.5	35.3	33.9	62.3	97.6	91.6	85.1	81.4	80.4
87.5°	9.3	13.0	13.0	9.8	7.4	17.2	19.5	5.6	0.0	0.5	0.9
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)