

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: P458466

Luminaire Tested: **GALN-SA9D-827-U-SL4**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P458466  
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-SA9D-827-U-SL4  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(9) 80 CRI, 2700K, 1200mA 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: 50463 lumens  
Efficiency: N/A  
Efficacy: 91.4 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

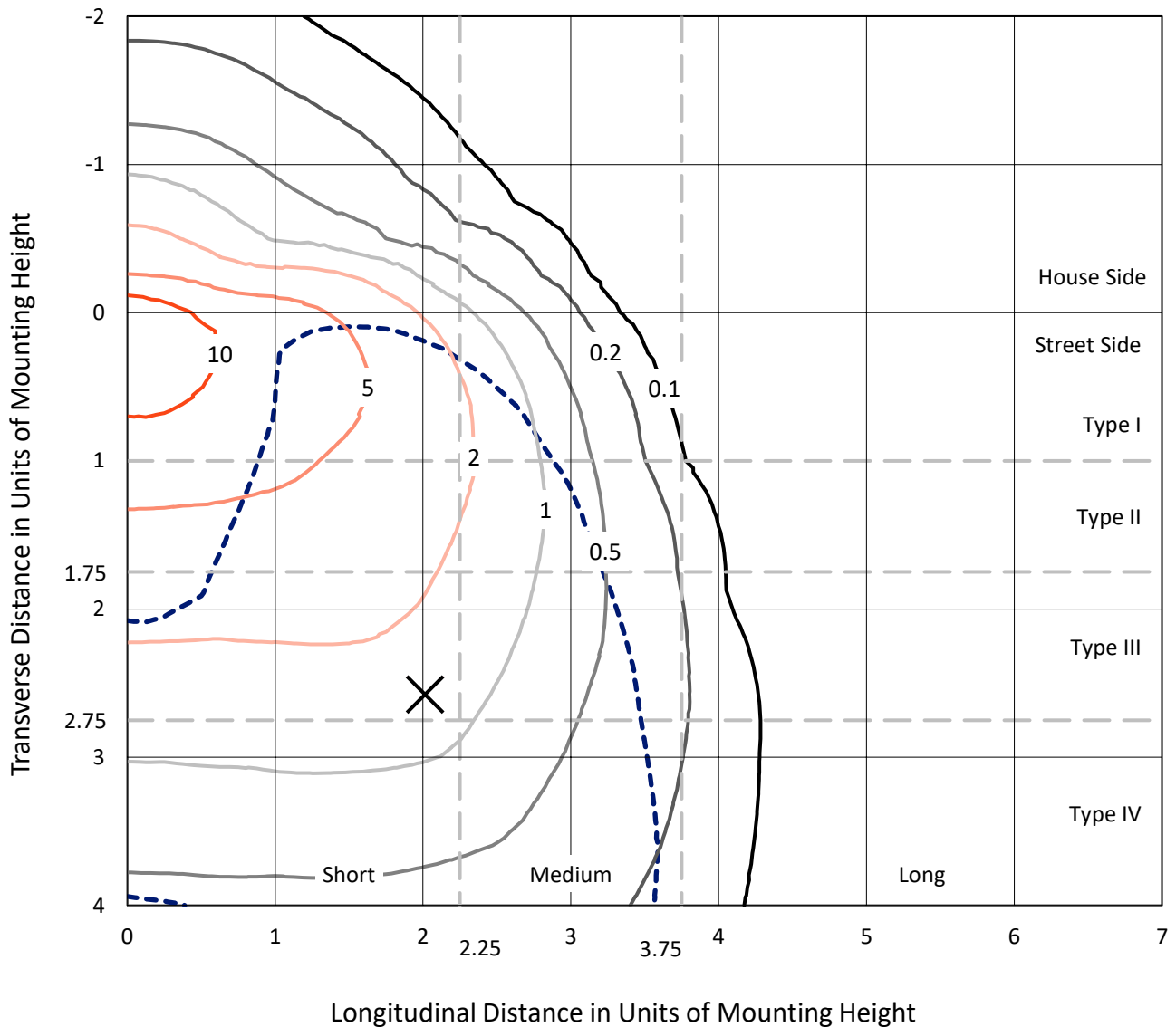
Input Watts (W): 552  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

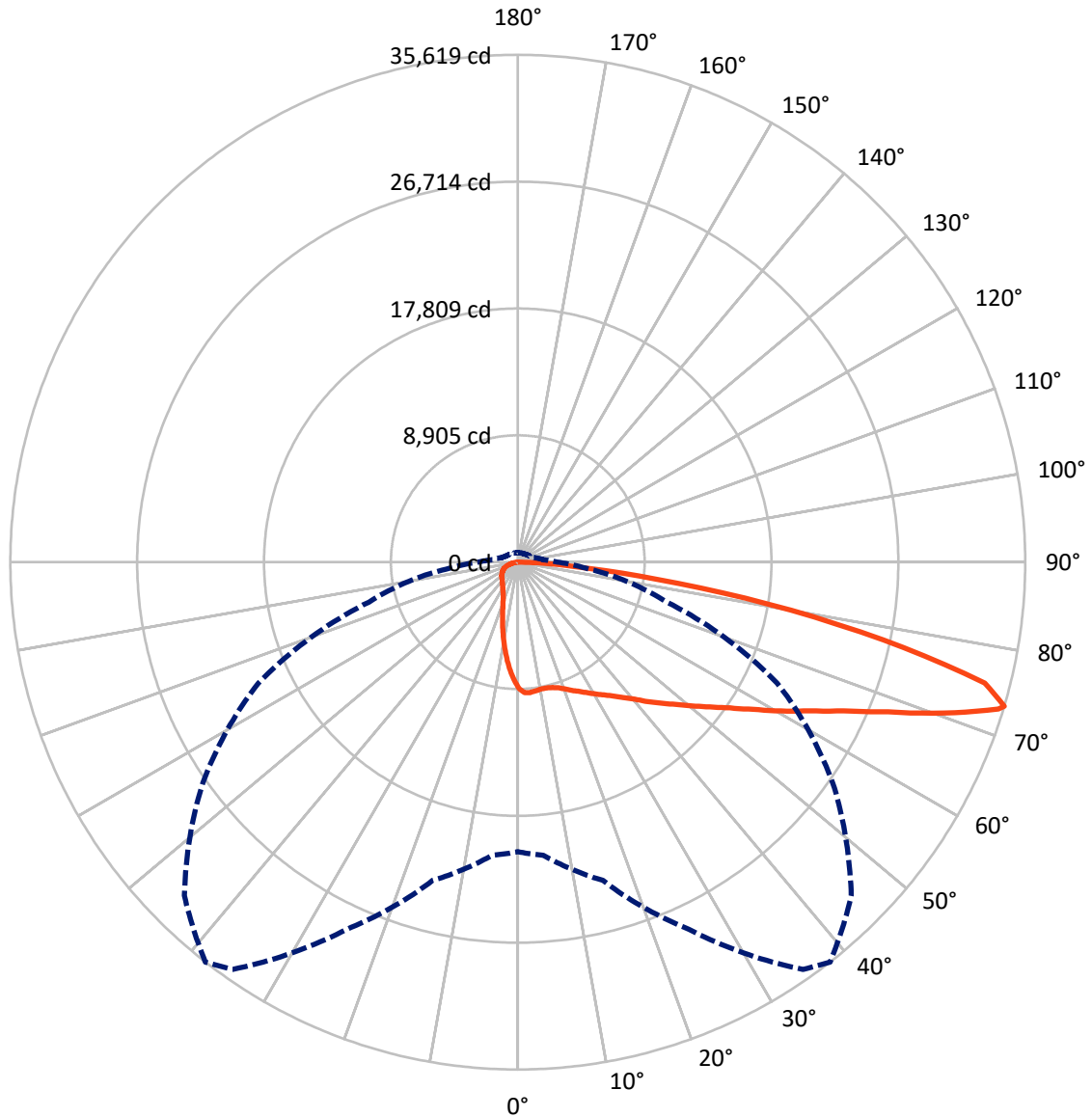
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 14.5 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
<b>House Side</b>	Lumens	6783.7	0.0	6783.7
	% Fixture	13.4	0.0	13.4
<b>Street Side</b>	Lumens	43679.3	0.0	43679.3
	% Fixture	86.6	0.0	86.6
<b>Total</b>	Lumens	50463.0	0.0	50463.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	773.8	1.5
10°-20°	1984.4	3.9
20°-30°	3090.1	6.1
30°-40°	4532.5	9.0
40°-50°	6723.5	13.3
50°-60°	9525.9	18.9
60°-70°	12083.8	23.9
70°-80°	10058.9	19.9
80°-90°	1690.0	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°	50463.0	100.0
0°-180°	50463.0	100.0

**Coefficient of Utilization**



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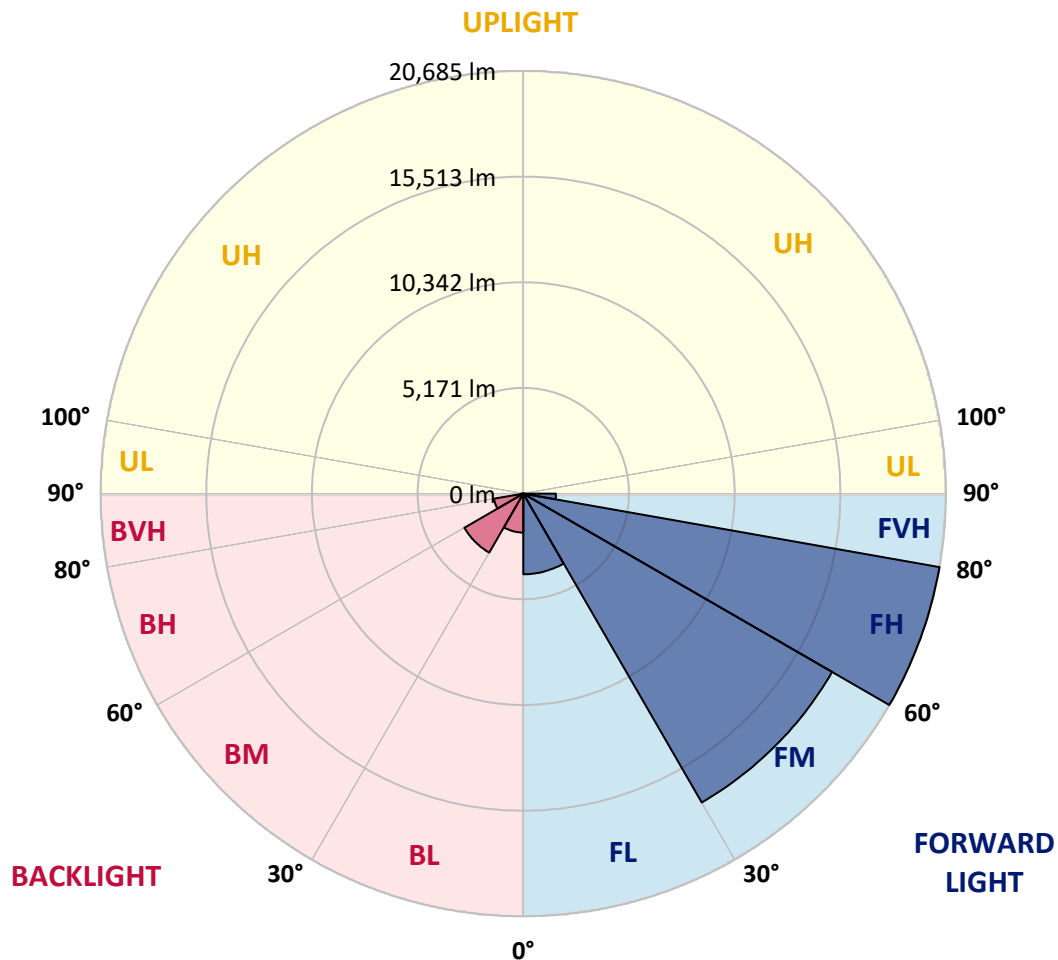
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3944.8	7.8			
FM (30°-60°)	17451.5	34.6			
FH (60°-80°)	20684.6	41.0			G5
FVH (80°-90°)	1598.4	3.2			G5
BL (0°-30°)	1903.6	3.8	B3/2500		
BM (30°-60°)	3330.4	6.6	B3/5000		
BH (60°-80°)	1458.1	2.9	B3/2500		G3/2500
BVH (80°-90°)	91.6	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°	8865.5	8865.5	8865.5	8865.5	8865.5	8865.5	8865.5	8865.5	8865.5	8865.5	8865.5
2.5°	9221.7	9267.3	9244.5	9213.2	9193.2	9173.3	9144.8	9062.1	8996.6	8925.3	8814.2
5°	9290.1	9318.6	9298.7	9258.8	9213.2	9193.2	9139.1	9030.8	8925.3	8805.6	8640.4
7.5°	9250.2	9261.6	9238.8	9190.4	9150.5	9113.4	9050.7	8931.0	8802.8	8657.5	8440.9
10°	9107.7	9150.5	9150.5	9110.6	9070.7	9050.7	8988.0	8874.0	8757.2	8591.9	8335.4
12.5°	8990.9	9036.5	9073.5	9062.1	9059.3	9059.3	9010.8	8925.3	8788.6	8631.8	8326.9
15°	8911.1	8965.2	9045.0	9090.6	9119.1	9127.7	9107.7	9033.6	8894.0	8711.6	8361.1
17.5°	8894.0	8959.5	9104.9	9204.6	9278.7	9275.9	9270.2	9167.6	9013.7	8825.6	8403.8
20°	8970.9	9056.4	9258.8	9415.5	9523.8	9503.8	9472.5	9338.5	9159.0	8948.1	8443.7
22.5°	9201.8	9290.1	9512.4	9683.4	9788.8	9788.8	9694.8	9518.1	9327.1	9090.6	8497.9
25°	9532.3	9629.2	9865.7	10039.6	10088.0	10051.0	9956.9	9743.2	9523.8	9295.8	8611.9
27.5°	9937.0	10053.8	10273.3	10418.6	10404.3	10375.8	10279.0	10005.4	9786.0	9577.9	8805.6
30°	10441.4	10526.9	10754.9	10789.1	10737.8	10732.1	10595.3	10321.7	10116.5	9956.9	9082.1
32.5°	10917.3	10994.2	11176.6	11190.9	11099.7	11111.1	10982.8	10732.1	10615.2	10558.2	9546.6
35°	11421.7	11461.6	11618.3	11601.2	11541.4	11532.8	11481.5	11242.2	11279.2	11381.8	10204.9
37.5°	11843.5	11923.2	12011.6	12025.8	12023.0	12051.5	12085.7	11971.7	12185.4	12507.4	11068.3
40°	12231.0	12299.4	12430.5	12476.1	12587.2	12644.2	12761.1	12763.9	13256.9	13787.0	12131.3
42.5°	12493.2	12610.0	12855.1	12937.8	13208.5	13379.5	13553.3	13738.5	14453.8	15134.9	13385.2
45°	12721.2	12875.1	13282.6	13539.0	13906.7	14114.7	14482.3	14869.9	15898.6	16790.6	14659.0
47.5°	13066.0	13202.8	13670.1	14123.2	14678.9	14918.3	15468.3	16046.8	17391.9	18369.3	15878.7
50°	13544.7	13627.4	14103.3	14841.4	15550.9	15858.7	16585.4	17420.4	18987.7	19928.1	16950.2
52.5°	14157.4	14191.6	14570.6	15553.8	16488.5	16870.4	17833.6	18808.2	20384.1	21281.7	17799.4
55°	14881.3	14824.3	15120.6	16309.0	17560.0	18058.7	19093.2	20213.1	21954.3	22376.0	18417.8
57.5°	15596.5	15508.2	15744.7	17226.6	18882.3	19483.6	20689.0	21660.8	23356.3	23399.1	18850.9
60°	16354.6	16289.0	16571.1	18303.8	20503.8	21216.2	22330.4	23162.6	24712.8	24111.5	18919.3
62.5°	17132.5	17027.1	17428.9	19514.9	22330.4	22977.3	24057.4	24758.4	26043.6	24376.5	18261.0
65°	17887.7	17839.3	18460.5	20954.0	24410.7	25146.0	26194.7	26670.6	27109.4	23977.6	16628.1
67.5°	18691.3	18788.2	19779.9	22874.7	27123.7	28047.0	29178.3	28730.9	27414.4	22088.2	14003.5
70°	19916.7	19979.4	21512.6	25391.0	30620.3	31734.5	32281.7	29463.3	25943.9	18500.4	10526.9
72.5°	20443.9	20720.3	23060.0	28032.7	34592.8	35273.9	33324.7	27830.4	21612.3	12567.3	5531.3
73°	20327.1	20657.7	23131.2	28434.6	34903.4	35618.7	33102.4	26989.7	20090.6	10823.3	4741.9
75°	18870.9	19278.4	22205.1	28098.3	34299.3	33871.8	29528.8	23003.0	13576.1	4921.5	2160.1
77.5°	14889.8	15006.7	17594.2	22689.5	27009.7	26217.5	22099.6	14376.9	5545.6	1829.5	1225.4
80°	7469.1	7899.4	9917.0	12997.6	18061.6	17802.2	13949.4	6799.4	2311.1	1074.3	812.2
82.5°	3593.5	3898.4	4830.3	6337.8	9979.7	9743.2	6907.7	3716.0	1467.6	626.9	478.8
85°	2314.0	2542.0	3074.9	3023.6	4103.6	3918.4	3103.4	2812.7	869.2	327.7	333.4
87.5°	1527.5	1672.8	2006.2	1604.4	1493.3	1350.8	1370.7	1584.4	171.0	125.4	45.6
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°	8865.5	8865.5	8865.5	8865.5	8865.5	8865.5	8865.5	8865.5	8865.5	8865.5	8865.5
2.5°	8768.6	8731.6	8609.0	8489.3	8375.3	8267.1	8195.8	8101.8	8039.1	8056.2	8081.8
5°	8549.2	8466.5	8250.0	8039.1	7839.6	7603.1	7412.1	7258.2	7141.4	7098.7	7090.1
7.5°	8318.3	8178.7	7868.1	7506.2	7167.1	6873.5	6534.4	6366.3	6169.7	6101.3	6078.5
10°	8178.7	7990.6	7554.6	7050.2	6540.1	6052.8	5685.2	5386.0	5115.3	5064.0	5038.3
12.5°	8138.8	7890.9	7303.8	6654.1	5975.9	5377.4	4833.1	4439.9	4177.7	4117.9	4029.5
15°	8116.0	7808.2	7070.2	6255.1	5394.5	4665.0	4092.2	3633.4	3394.0	3234.4	3237.3
17.5°	8096.1	7714.2	6808.0	5819.1	4893.0	4052.3	3419.7	3006.5	2787.0	2701.5	2693.0
20°	8067.6	7603.1	6505.9	5360.3	4320.2	3493.8	2921.0	2613.2	2465.0	2393.8	2390.9
22.5°	8056.2	7494.8	6209.6	4893.0	3812.9	3063.5	2590.4	2373.8	2279.8	2231.3	2231.3
25°	8084.7	7417.8	5898.9	4448.4	3362.7	2695.8	2362.4	2214.2	2160.1	2134.4	2125.9
27.5°	8173.0	7383.6	5591.2	4003.9	2949.5	2445.1	2208.5	2105.9	2066.1	2046.1	2049.0
30°	8341.1	7380.8	5289.1	3565.0	2641.7	2254.1	2086.0	2014.8	1983.4	1972.0	1969.2
32.5°	8611.9	7443.5	4992.7	3203.1	2382.4	2094.5	1972.0	1920.7	1906.5	1897.9	1895.1
35°	9070.7	7620.2	4699.2	2872.5	2182.9	1952.1	1863.7	1838.1	1818.1	1826.7	1829.5
37.5°	9689.1	7925.1	4419.9	2613.2	2031.9	1846.6	1772.5	1749.7	1738.3	1746.9	1755.4
40°	10518.3	8363.9	4186.2	2405.2	1923.6	1758.3	1692.7	1672.8	1661.4	1675.6	1678.5
42.5°	11433.1	8871.2	3992.5	2242.7	1835.2	1684.2	1621.5	1598.7	1590.1	1598.7	1601.5
45°	12373.5	9461.1	3892.7	2125.9	1761.1	1630.0	1564.5	1538.9	1518.9	1513.2	1521.8
47.5°	13299.7	9974.0	3889.9	2054.7	1701.3	1581.6	1510.4	1481.9	1456.2	1442.0	1439.1
50°	14054.8	10381.5	3958.3	2023.3	1650.0	1527.5	1456.2	1427.7	1393.5	1365.0	1370.7
52.5°	14624.8	10646.6	3989.6	2009.1	1621.5	1470.5	1399.2	1373.6	1333.7	1296.6	1296.6
55°	14992.4	10709.3	3912.7	1994.8	1598.7	1410.6	1333.7	1310.9	1271.0	1233.9	1233.9
57.5°	15117.8	10515.5	3636.2	1960.6	1575.9	1359.3	1268.1	1248.2	1216.8	1179.8	1174.1
60°	14827.1	9860.0	3151.8	1858.0	1530.3	1305.2	1196.9	1188.3	1176.9	1145.6	1142.7
62.5°	13707.2	8469.4	2624.6	1724.1	1453.4	1248.2	1131.3	1145.6	1154.1	1137.0	1134.2
65°	11843.5	6876.4	2242.7	1538.9	1350.8	1168.4	1060.1	1097.1	1119.9	1119.9	1114.2
67.5°	9606.4	5280.5	1889.4	1379.3	1222.5	1060.1	980.3	1008.8	1025.9	1020.2	1034.5
70°	6827.9	3576.4	1538.9	1196.9	1060.1	937.6	877.7	877.7	866.3	860.6	860.6
72.5°	3311.4	2043.3	1248.2	1000.3	903.4	800.8	752.3	732.4	709.6	706.7	692.5
73°	2767.1	1832.4	1191.2	963.2	866.3	780.8	726.7	695.3	681.1	669.7	666.8
75°	1684.2	1390.7	994.6	812.2	738.1	672.5	624.1	595.6	581.3	572.8	569.9
77.5°	1108.5	1037.3	772.3	621.2	564.2	524.3	504.4	475.9	467.4	456.0	456.0
80°	826.4	792.2	552.8	438.9	404.7	370.5	364.8	359.1	336.3	322.0	316.3
82.5°	532.9	564.2	376.2	293.5	256.5	228.0	230.8	239.4	216.6	196.6	190.9
85°	379.0	407.5	228.0	133.9	108.3	94.0	105.4	94.0	96.9	76.9	62.7
87.5°	62.7	108.3	39.9	17.1	8.5	5.7	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)