

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: P458479

Luminaire Tested: **GALN-SA9D-827-U-T3R**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P458479  
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-SA9D-827-U-T3R  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(9) 80 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: 52757 lumens  
Efficiency: N/A  
Efficacy: 95.6 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B4 - U0 - G5

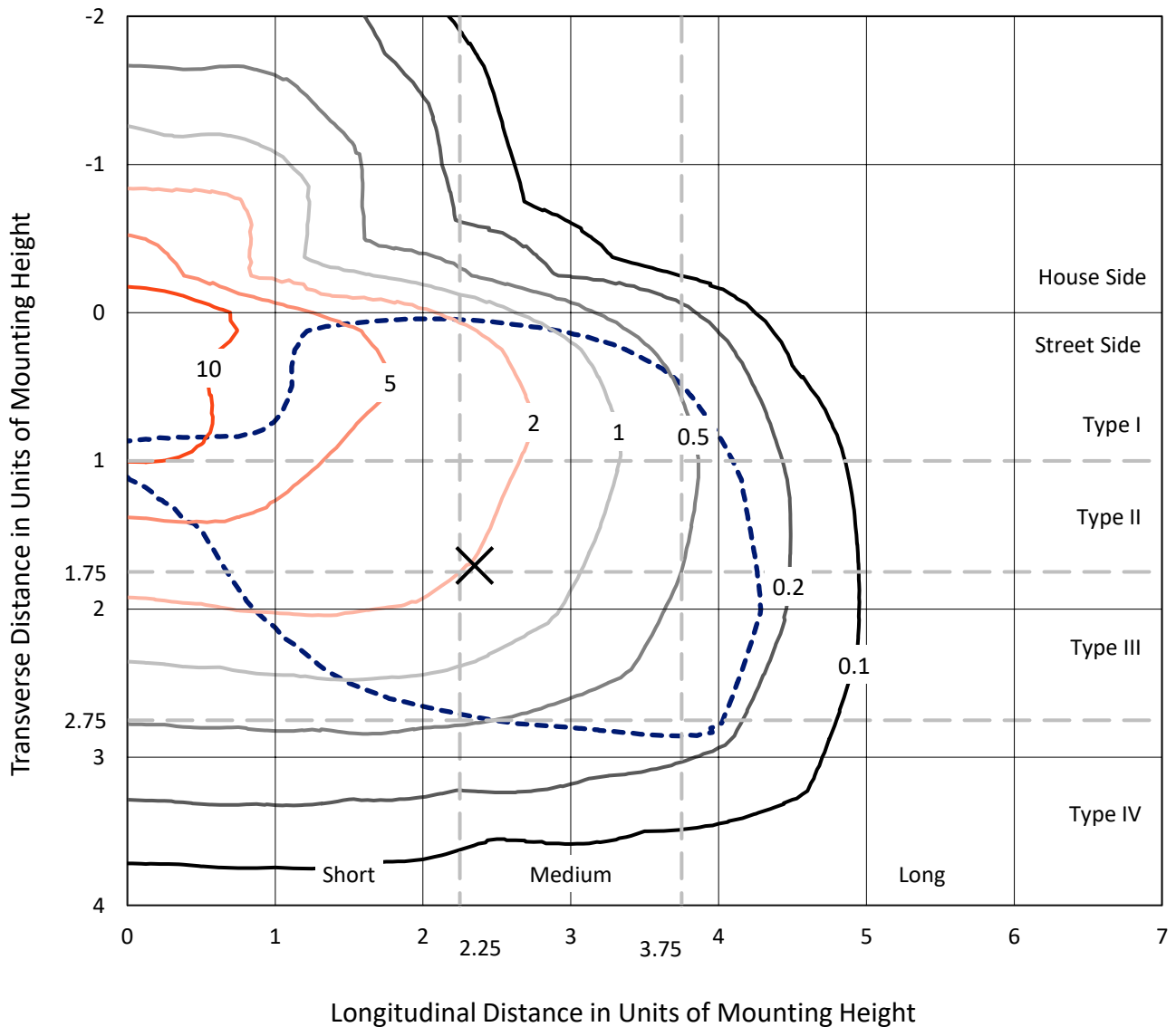
Input Watts (W): 552  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

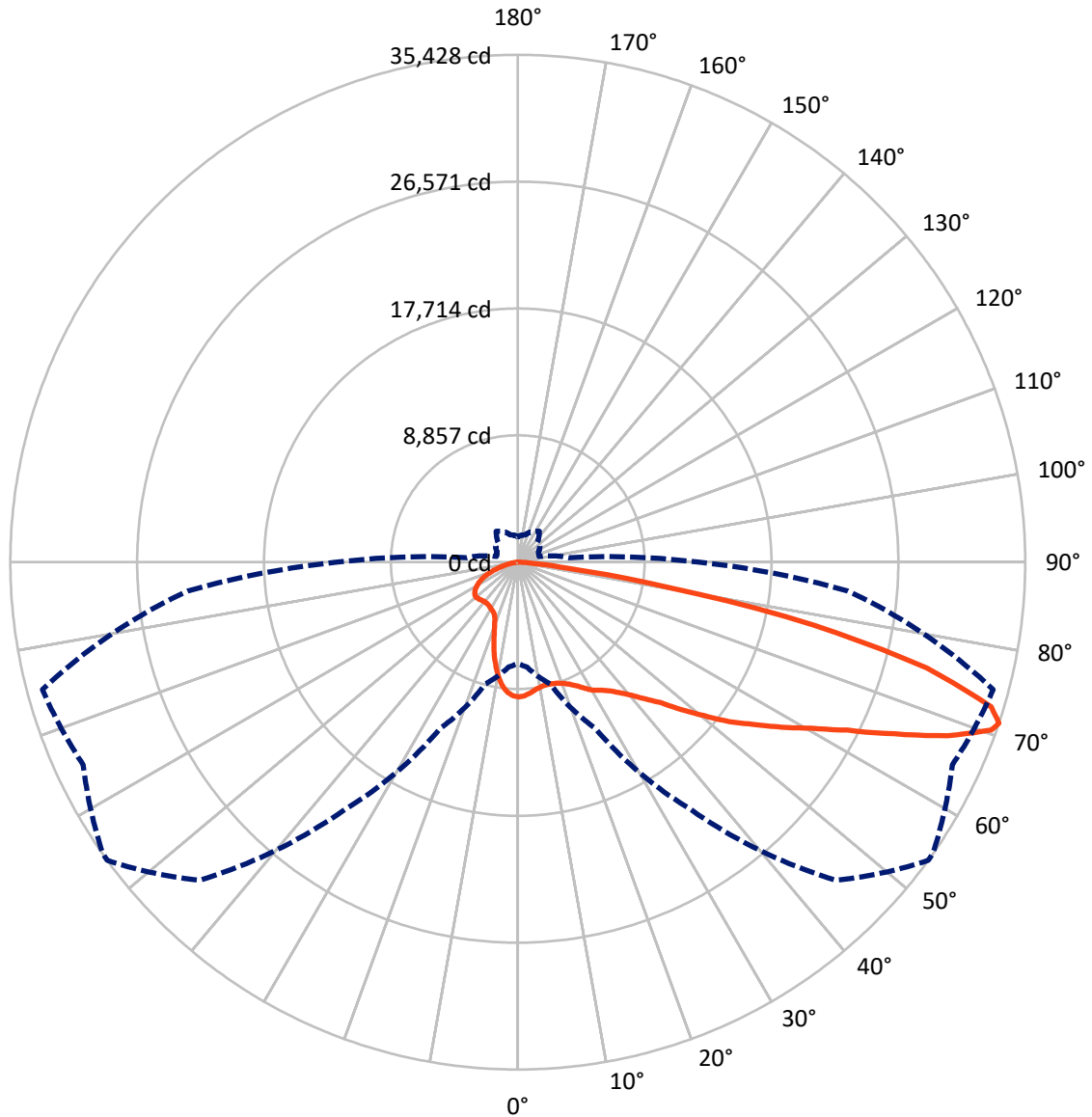
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 15.2 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
<b>House Side</b>	Lumens	9524.9	0.0	9524.9
	% Fixture	18.1	0.0	18.1
<b>Street Side</b>	Lumens	43232.0	0.0	43232.0
	% Fixture	81.9	0.0	81.9
<b>Total</b>	Lumens	52757.0	0.0	52757.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	838.8	1.6
10°-20°	2214.9	4.2
20°-30°	3687.9	7.0
30°-40°	5453.1	10.3
40°-50°	7680.9	14.6
50°-60°	10285.1	19.5
60°-70°	12963.6	24.6
70°-80°	8854.1	16.8
80°-90°	778.7	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°	52757.0	100.0
0°-180°	52757.0	100.0

**Coefficient of Utilization**



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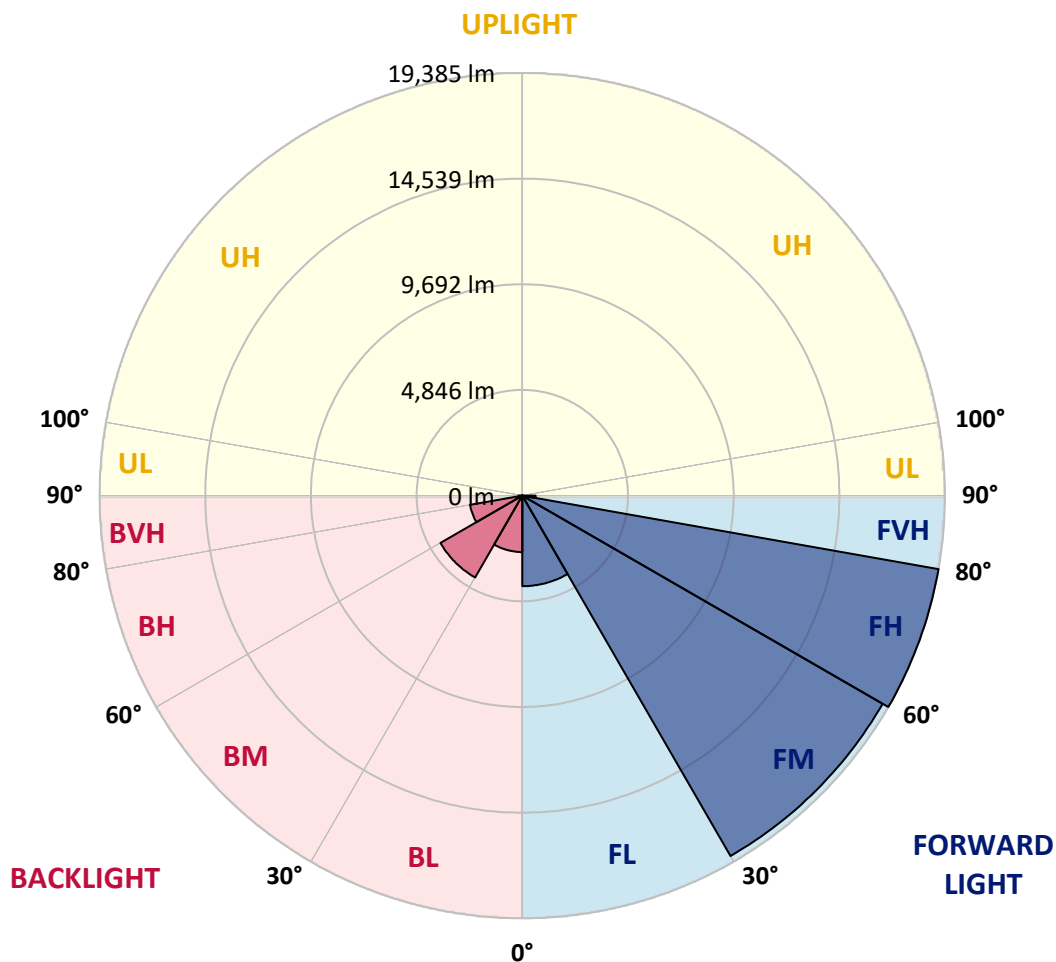
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4152.8	7.9			
FM	(30°-60°)	19085.6	36.2			
FH	(60°-80°)	19385.0	36.7			G5
FVH	(80°-90°)	608.6	1.2			G4/750
BL	(0°-30°)	2588.7	4.9	B4/5000		
BM	(30°-60°)	4333.6	8.2	B3/5000		
BH	(60°-80°)	2432.6	4.6	B3/2500		G3/2500
BVH	(80°-90°)	170.0	0.3			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G5**

Type IV Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	9412.6	9412.6	9412.6	9412.6	9412.6	9412.6	9412.6	9412.6	9412.6	9412.6	9412.6
2.5°	9093.5	9136.2	9147.6	9176.1	9235.9	9284.4	9332.8	9327.1	9395.5	9424.0	9449.7
5°	8688.8	8700.2	8742.9	8799.9	8905.4	9039.3	9170.4	9173.3	9341.4	9475.3	9540.9
7.5°	8392.4	8429.5	8458.0	8517.8	8629.0	8774.3	8982.3	8999.4	9298.6	9563.7	9703.3
10°	8198.6	8241.4	8272.7	8346.8	8458.0	8620.4	8845.5	8876.9	9267.3	9703.3	9948.4
12.5°	8022.0	8064.7	8093.2	8190.1	8335.4	8534.9	8788.5	8825.6	9278.7	9865.7	10216.3
15°	8130.3	8164.5	8153.1	8181.6	8278.4	8506.4	8811.3	8848.4	9321.4	10022.5	10481.3
17.5°	8611.9	8640.4	8546.3	8438.0	8392.4	8560.6	8882.6	8922.5	9406.9	10184.9	10752.0
20°	9321.4	9398.4	9193.2	8951.0	8731.5	8754.3	9030.8	9073.5	9526.6	10347.3	11028.4
22.5°	10244.7	10301.7	10051.0	9652.0	9247.3	9039.3	9253.0	9278.7	9706.2	10558.2	11330.5
25°	11330.5	11364.7	11017.0	10504.1	9919.9	9526.6	9558.0	9603.6	10002.5	10797.6	11598.4
27.5°	12384.9	12493.2	12091.4	11464.4	10695.0	10039.6	9976.9	10005.4	10324.5	10931.5	11783.6
30°	13635.9	13627.4	13202.8	12476.1	11490.1	10598.1	10373.0	10367.3	10498.4	10997.1	11917.5
32.5°	14633.3	14750.2	14334.1	13541.9	12399.1	11176.6	10646.6	10635.2	10632.3	11111.1	12117.0
35°	15767.5	15784.6	15402.7	14604.8	13382.3	11903.3	11028.4	10971.4	10905.9	11356.1	12387.7
37.5°	16782.0	16861.8	16511.3	15616.5	14348.3	12658.5	11552.8	11515.7	11316.2	11780.7	12820.9
40°	17574.2	17634.1	17423.2	16571.1	15300.2	13473.5	12219.6	12151.2	11909.0	12476.1	13399.4
42.5°	17833.6	17956.1	18038.7	17619.8	16394.4	14439.5	13040.3	12954.8	12769.6	13530.5	14066.2
45°	17853.5	18047.3	18483.3	18503.2	17494.4	15596.5	13997.8	13938.0	13923.7	14881.2	15003.8
47.5°	17702.5	17899.1	18631.5	19027.6	18474.7	16764.9	15379.9	15285.9	15294.5	16551.2	16055.3
50°	17337.7	17571.4	18460.5	19363.9	19241.3	17978.9	16839.0	16807.7	16984.3	18457.6	17146.8
52.5°	16650.9	16933.0	18283.8	19574.7	19811.3	19024.7	18497.5	18409.2	18856.6	20526.5	18340.8
55°	14750.2	15174.8	17636.9	19691.6	20352.7	20025.0	19990.8	20150.4	20743.1	22783.5	19654.5
57.5°	13758.5	14077.6	16232.0	19711.5	21036.6	21187.7	21734.8	21774.7	22812.0	25180.1	21139.2
60°	13217.0	13499.1	15462.6	19580.4	21991.3	22626.8	23518.8	23661.2	24832.5	27776.2	22678.1
62.5°	12744.0	12986.2	15000.9	19127.3	23068.5	24761.2	25829.9	25898.3	27126.5	30643.1	24197.0
65°	11629.7	11906.1	14071.9	18674.2	23997.5	27428.6	28896.2	28816.4	29568.7	33116.6	25148.8
67.5°	10127.9	10478.4	12336.4	17109.7	24456.3	30343.8	32350.0	32250.3	31979.6	34738.1	25422.4
70°	8210.0	8398.1	10116.5	14405.3	22623.9	31874.1	35077.2	34971.8	33472.8	34951.8	24128.6
71°	7064.5	7358.0	8808.5	12795.2	21099.3	31406.8	35427.7	35399.2	33475.7	34361.9	23154.0
72.5°	5514.2	5693.7	6976.1	9914.2	17933.3	28750.8	34561.4	34669.7	32749.0	32723.4	21144.9
75°	3488.1	3567.9	4377.2	5836.2	9840.1	20361.3	29503.2	29796.7	29078.6	26784.5	15724.8
77.5°	2026.2	2128.7	2621.7	3439.6	4251.8	11051.2	21110.7	21429.9	20204.5	14747.3	6437.5
80°	1179.8	1293.8	1726.9	1997.7	1952.1	4100.7	10749.1	11293.4	8748.6	3724.6	1806.7
82.5°	655.4	732.4	1214.0	1216.8	1040.1	1339.4	3382.6	3539.4	2496.4	1501.8	738.1
85°	475.9	538.6	783.7	709.6	498.7	575.6	1176.9	1233.9	1008.8	632.6	239.4
87.5°	168.1	239.4	430.3	342.0	136.8	119.7	339.1	276.4	256.5	176.7	54.1
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°	9412.6	9412.6	9412.6	9412.6	9412.6	9412.6	9412.6	9412.6	9412.6	9412.6	9412.6
2.5°	9463.9	9469.6	9441.1	9389.8	9338.5	9273.0	9198.9	9141.9	9116.3	9113.4	9110.6
5°	9566.5	9580.8	9472.5	9312.9	9136.2	8919.6	8734.4	8523.5	8469.4	8383.9	8409.5
7.5°	9731.8	9723.2	9509.5	9170.4	8757.2	8298.4	7910.8	7685.7	7452.0	7386.5	7389.3
10°	9968.3	9914.2	9509.5	8879.7	8190.1	7509.0	6967.6	6625.6	6440.4	6286.5	6229.5
12.5°	10219.1	10082.3	9418.3	8472.2	7460.6	6625.6	6044.3	5582.6	5462.9	5337.5	5340.4
15°	10458.5	10230.5	9238.8	7899.4	6674.0	5682.3	5118.1	4841.7	4804.6	4818.9	4816.0
17.5°	10675.1	10335.9	8965.2	7261.1	5756.4	4873.0	4573.8	4593.8	4693.5	4764.7	4773.3
20°	10894.5	10398.6	8557.7	6406.2	4890.1	4382.9	4394.3	4551.0	4702.0	4798.9	4813.2
22.5°	11102.5	10427.1	8079.0	5579.8	4263.2	4174.8	4343.0	4511.1	4659.3	4753.3	4767.6
25°	11239.3	10361.6	7400.7	4716.3	3955.4	4100.7	4277.4	4419.9	4545.3	4642.2	4665.0
27.5°	11276.3	10150.7	6560.1	4018.1	3812.9	4029.5	4191.9	4297.4	4394.3	4485.5	4502.6
30°	11256.4	9840.1	5636.7	3607.7	3730.3	3946.9	4072.3	4149.2	4266.0	4337.3	4351.5
32.5°	11225.1	9478.2	4673.5	3388.3	3661.9	3869.9	3944.0	4012.4	4009.6	3981.1	4001.0
35°	11236.5	9045.0	3892.7	3257.2	3602.0	3812.9	3875.6	3790.1	3545.1	3533.7	3522.3
37.5°	11296.3	8617.6	3325.6	3166.0	3570.7	3804.4	3838.6	3445.3	3228.7	3129.0	3103.3
40°	11450.2	8118.9	2952.3	3097.6	3567.9	3869.9	3670.4	3271.5	2855.4	2661.6	2647.4
42.5°	11655.4	7628.7	2724.3	3054.9	3602.0	3969.7	3602.0	3026.4	2573.3	2459.3	2442.2
45°	11960.3	7067.3	2598.9	3035.0	3653.3	4006.7	3579.3	2846.9	2459.3	2368.1	2368.1
47.5°	12305.1	6531.6	2530.6	3020.7	3718.9	3981.1	3376.9	2789.9	2405.2	2416.6	2470.7
50°	12647.1	6067.1	2479.3	2989.4	3775.9	3966.8	3294.3	2787.0	2419.4	2564.7	2661.6
52.5°	13043.2	5739.3	2416.6	2938.1	3775.9	3875.6	3268.6	2844.0	2459.3	2502.1	2544.8
55°	13521.9	5636.7	2336.8	2826.9	3707.5	3647.6	3254.4	2926.7	2487.8	2388.1	2405.2
57.5°	14154.6	5802.0	2259.8	2687.3	3550.8	3411.1	3248.7	2949.5	2422.3	2339.6	2322.5
60°	14889.8	6129.8	2237.0	2544.8	3337.0	3208.8	3214.5	2883.9	2331.1	2245.6	2259.8
62.5°	15405.6	6326.4	2222.8	2436.5	3103.3	2986.5	3131.8	2804.1	2291.2	2217.1	2231.3
65°	15405.6	6087.0	2091.7	2271.2	2801.3	2718.6	3032.1	2704.4	2239.9	2154.4	2140.1
67.5°	14821.4	5388.8	1892.2	2023.3	2467.9	2413.7	2892.5	2584.7	2162.9	2097.4	2063.2
70°	13299.7	4086.5	1641.4	1732.6	2046.1	2094.5	2712.9	2422.3	2034.7	1954.9	1903.6
71°	12630.0	3559.3	1536.0	1584.4	1883.7	1954.9	2627.4	2353.9	1977.7	1863.7	1772.5
72.5°	11339.0	2997.9	1376.4	1396.4	1610.1	1738.3	2447.9	2222.8	1869.4	1707.0	1604.4
75°	8614.7	2188.6	1108.5	1097.1	1191.2	1379.3	2071.7	1980.6	1638.6	1419.2	1359.3
77.5°	3721.7	1191.2	829.3	837.8	809.3	1045.8	1630.0	1701.3	1404.9	1154.1	1100.0
80°	1128.5	686.8	567.1	578.5	541.4	701.0	1148.4	1333.7	1128.5	897.7	823.6
82.5°	578.5	410.4	387.6	381.9	344.8	396.1	695.3	911.9	806.5	561.4	495.9
85°	250.8	219.4	190.9	185.2	162.4	142.5	247.9	456.0	427.5	313.5	299.2
87.5°	62.7	57.0	37.0	34.2	19.9	2.8	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)