

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: P454767

Luminaire Tested: **GALN-SA5D-827-U-T3R**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P454767  
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-SA5D-827-U-T3R  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(5) 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: 29144 lumens  
Efficiency: N/A  
Efficacy: 94.3 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B3 - U0 - G4

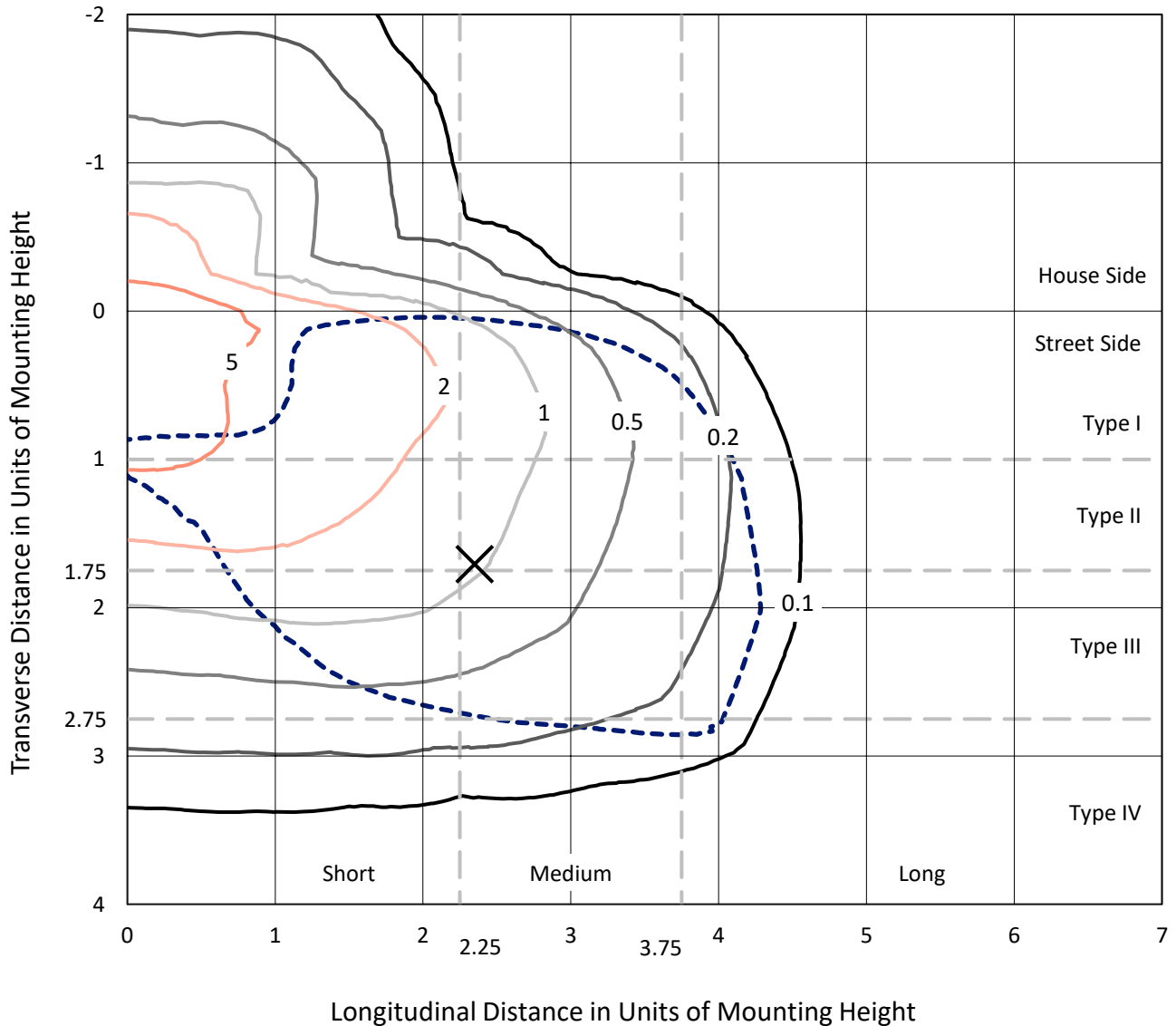
Input Watts (W): 309  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

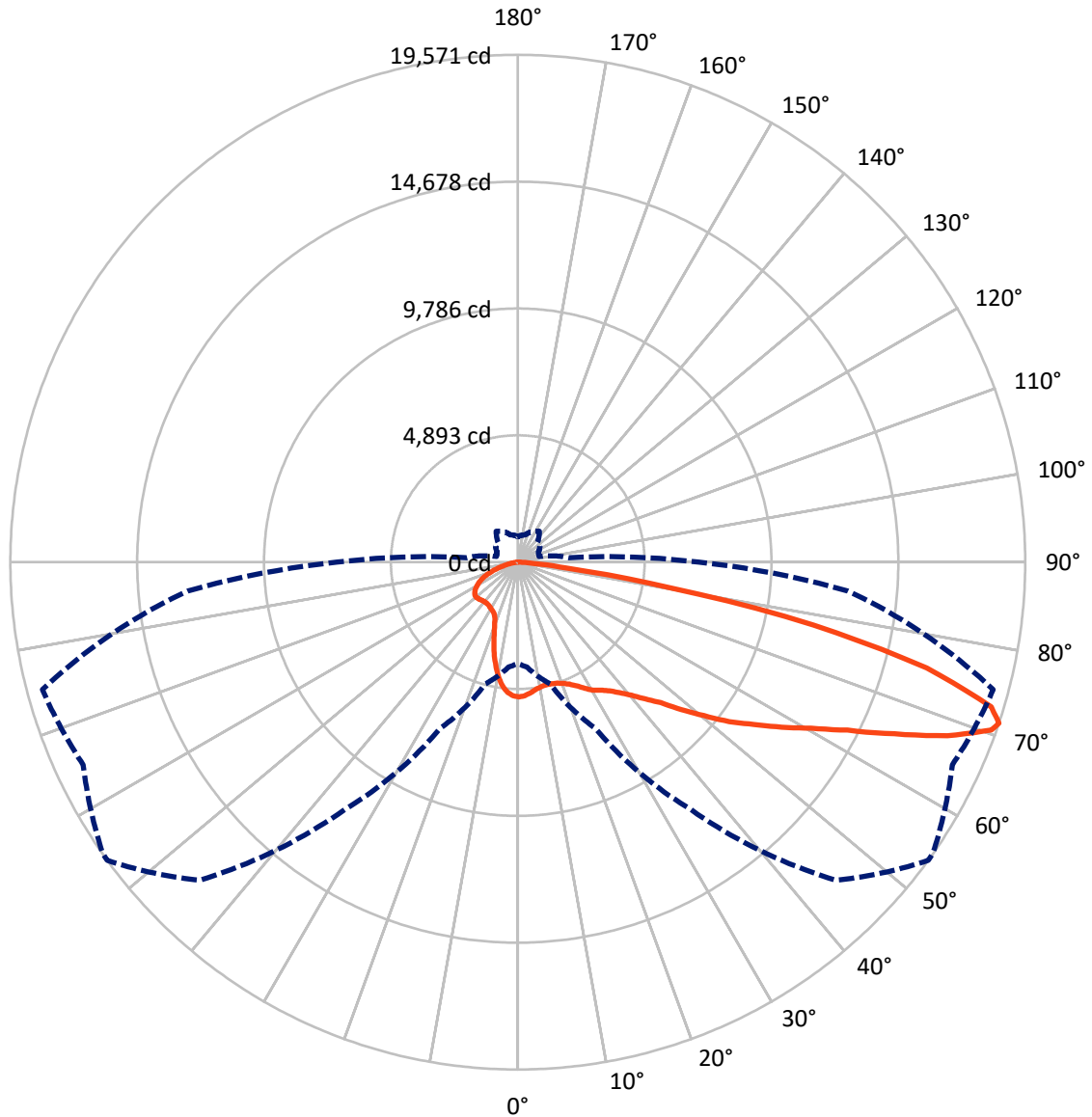
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.4 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	5261.8	0.0	5261.8
	% Fixture	18.1	0.0	18.1
<b>Street Side</b>	Lumens	23882.2	0.0	23882.2
	% Fixture	81.9	0.0	81.9
<b>Total</b>	Lumens	29144.0	0.0	29144.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	463.4	1.6
10°-20°	1223.5	4.2
20°-30°	2037.2	7.0
30°-40°	3012.4	10.3
40°-50°	4243.1	14.6
50°-60°	5681.7	19.5
60°-70°	7161.3	24.6
70°-80°	4891.2	16.8
80°-90°	430.1	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°	29144.0	100.0
0°-180°	29144.0	100.0

**Coefficient of Utilization**



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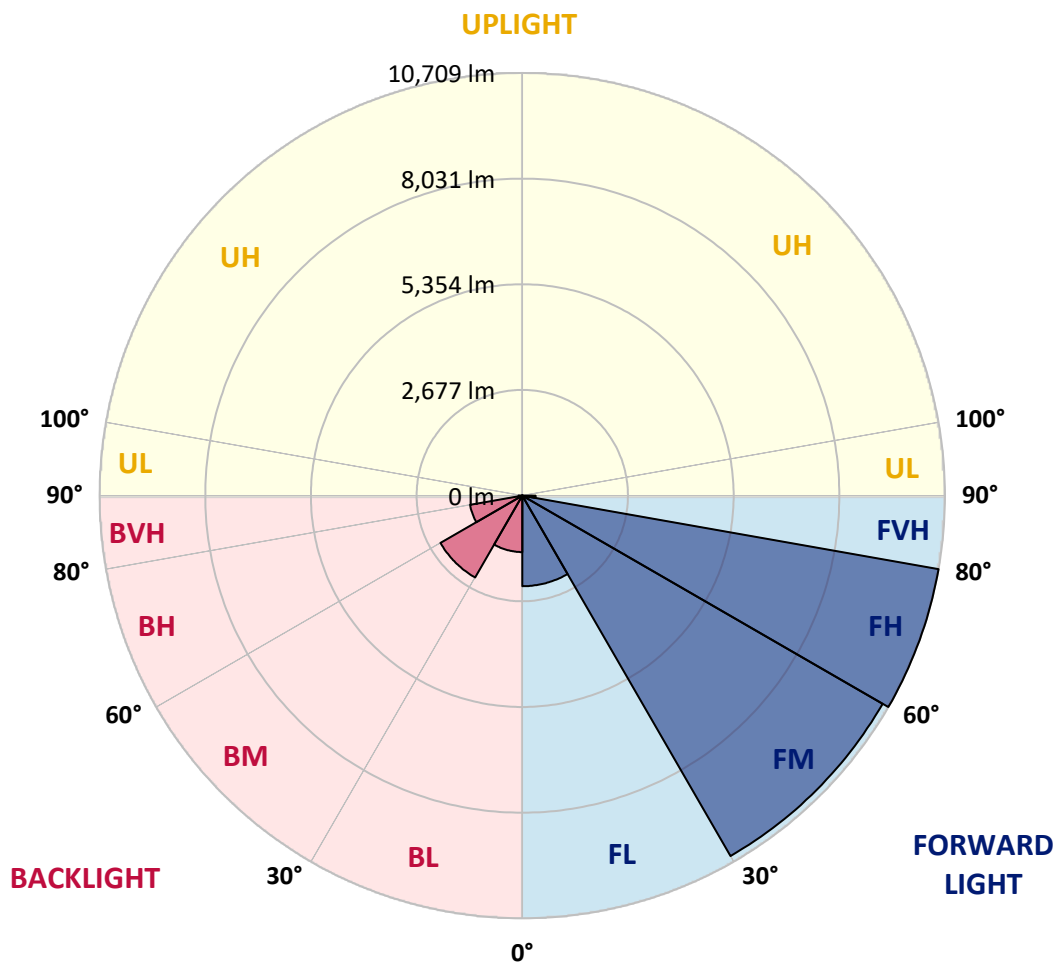
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2294.1	7.9			
FM	(30°-60°)	10543.2	36.2			
FH	(60°-80°)	10708.6	36.7			G4/12000
FVH	(80°-90°)	336.2	1.2			G3/500
BL	(0°-30°)	1430.0	4.9	B3/2500		
BM	(30°-60°)	2394.0	8.2	B2/2500		
BH	(60°-80°)	1343.8	4.6	B3/2500		G3/2500
BVH	(80°-90°)	93.9	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°	5199.7	5199.7	5199.7	5199.7	5199.7	5199.7	5199.7	5199.7	5199.7	5199.7	5199.7
2.5°	5023.4	5047.0	5053.3	5069.1	5102.1	5128.9	5155.6	5152.5	5190.3	5206.0	5220.2
5°	4799.9	4806.2	4829.8	4861.3	4919.5	4993.5	5065.9	5067.5	5160.4	5234.4	5270.6
7.5°	4636.1	4656.6	4672.4	4705.4	4766.8	4847.1	4962.0	4971.5	5136.8	5283.2	5360.3
10°	4529.1	4552.7	4570.0	4611.0	4672.4	4762.1	4886.4	4903.8	5119.4	5360.3	5495.7
12.5°	4431.5	4455.1	4470.8	4524.4	4604.7	4714.9	4855.0	4875.4	5125.7	5450.0	5643.7
15°	4491.3	4510.2	4503.9	4519.6	4573.2	4699.1	4867.6	4888.0	5149.3	5536.6	5790.1
17.5°	4757.4	4773.1	4721.2	4661.3	4636.1	4729.0	4906.9	4929.0	5196.6	5626.3	5939.6
20°	5149.3	5191.8	5078.5	4944.7	4823.5	4836.1	4988.8	5012.4	5262.7	5716.1	6092.3
22.5°	5659.4	5690.9	5552.4	5332.0	5108.4	4993.5	5111.6	5125.7	5361.9	5832.6	6259.2
25°	6259.2	6278.1	6086.0	5802.7	5479.9	5262.7	5280.0	5305.2	5525.6	5964.8	6407.2
27.5°	6841.7	6901.5	6679.5	6333.2	5908.1	5546.1	5511.4	5527.2	5703.5	6038.8	6509.5
30°	7532.7	7528.0	7293.5	6892.0	6347.3	5854.6	5730.2	5727.1	5799.5	6075.0	6583.5
32.5°	8083.7	8148.3	7918.4	7480.8	6849.5	6174.2	5881.4	5875.1	5873.5	6138.0	6693.7
35°	8710.3	8719.7	8508.8	8068.0	7392.6	6575.6	6092.3	6060.8	6024.6	6273.4	6843.2
37.5°	9270.7	9314.8	9121.2	8626.8	7926.3	6992.8	6382.0	6361.5	6251.3	6507.9	7082.5
40°	9708.4	9741.4	9624.9	9154.2	8452.1	7443.0	6750.3	6712.6	6578.8	6892.0	7402.1
42.5°	9851.6	9919.3	9965.0	9733.5	9056.6	7976.7	7203.7	7156.5	7054.2	7474.5	7770.5
45°	9862.6	9969.7	10210.5	10221.6	9664.3	8615.8	7732.7	7699.6	7691.7	8220.7	8288.4
47.5°	9779.2	9887.8	10292.4	10511.2	10205.8	9261.3	8496.2	8444.2	8449.0	9143.2	8869.3
50°	9577.7	9706.8	10197.9	10697.0	10629.3	9931.9	9302.2	9284.9	9382.5	10196.4	9472.2
52.5°	9198.3	9354.1	10100.3	10813.5	10944.1	10509.6	10218.4	10169.6	10416.8	11339.3	10131.8
55°	8148.3	8382.8	9743.0	10878.0	11243.2	11062.2	11043.3	11131.5	11458.9	12586.1	10857.5
57.5°	7600.4	7776.8	8966.9	10889.0	11621.1	11704.5	12006.7	12028.8	12601.8	13910.0	11677.7
60°	7301.3	7457.2	8541.8	10816.6	12148.4	12499.5	12992.2	13070.9	13717.9	15344.1	12527.8
62.5°	7040.0	7173.8	8286.8	10566.3	12743.5	13678.6	14268.9	14306.7	14985.2	16927.8	13366.9
65°	6424.5	6577.2	7773.6	10316.0	13256.7	15152.1	15962.8	15918.7	16334.3	18294.3	13892.7
67.5°	5594.9	5788.5	6814.9	9451.7	13510.1	16762.5	17870.8	17815.7	17666.1	19190.0	14043.8
70°	4535.4	4639.3	5588.6	7957.8	12497.9	17607.9	19377.3	19319.1	18491.0	19308.1	13329.1
71°	3902.5	4064.7	4866.0	7068.3	11655.7	17349.7	19571.0	19555.2	18492.6	18982.2	12790.7
72.5°	3046.2	3145.3	3853.7	5476.8	9906.7	15882.5	19092.4	19152.2	18091.2	18077.0	11680.9
75°	1926.9	1971.0	2418.0	3224.0	5435.9	11248.0	16298.1	16460.3	16063.6	14796.3	8686.7
77.5°	1119.3	1176.0	1448.3	1900.1	2348.8	6104.9	11662.0	11838.3	11161.4	8146.7	3556.2
80°	651.7	714.7	954.0	1103.5	1078.4	2265.3	5938.0	6238.7	4832.9	2057.5	998.1
82.5°	362.1	404.6	670.6	672.2	574.6	739.9	1868.6	1955.2	1379.0	829.6	407.7
85°	262.9	297.5	432.9	392.0	275.5	318.0	650.2	681.6	557.3	349.5	132.2
87.5°	92.9	132.2	237.7	188.9	75.6	66.1	187.3	152.7	141.7	97.6	29.9
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°	5199.7	5199.7	5199.7	5199.7	5199.7	5199.7	5199.7	5199.7	5199.7	5199.7	5199.7
2.5°	5228.1	5231.2	5215.5	5187.1	5158.8	5122.6	5081.7	5050.2	5036.0	5034.4	5032.9
5°	5284.7	5292.6	5232.8	5144.6	5047.0	4927.4	4825.1	4708.6	4678.6	4631.4	4645.6
7.5°	5376.0	5371.3	5253.2	5065.9	4837.6	4584.2	4370.1	4245.7	4116.6	4080.4	4082.0
10°	5506.7	5476.8	5253.2	4905.3	4524.4	4148.1	3849.0	3660.1	3557.8	3472.8	3441.3
12.5°	5645.2	5569.7	5202.9	4680.2	4121.4	3660.1	3339.0	3083.9	3017.8	2948.6	2950.1
15°	5777.5	5651.5	5103.7	4363.8	3686.9	3139.0	2827.3	2674.6	2654.2	2662.0	2660.5
17.5°	5897.1	5709.8	4952.6	4011.2	3180.0	2692.0	2526.7	2537.7	2592.8	2632.1	2636.9
20°	6018.3	5744.4	4727.4	3538.9	2701.4	2421.2	2427.5	2514.1	2597.5	2651.0	2658.9
22.5°	6133.2	5760.2	4463.0	3082.4	2355.1	2306.3	2399.1	2492.0	2573.9	2625.8	2633.7
25°	6208.8	5723.9	4088.3	2605.4	2185.0	2265.3	2362.9	2441.6	2510.9	2564.4	2577.0
27.5°	6229.3	5607.4	3623.9	2219.7	2106.3	2226.0	2315.7	2374.0	2427.5	2477.9	2487.3
30°	6218.3	5435.9	3113.9	1993.0	2060.7	2180.3	2249.6	2292.1	2356.6	2396.0	2403.9
32.5°	6200.9	5235.9	2581.8	1871.8	2022.9	2137.8	2178.8	2216.5	2215.0	2199.2	2210.2
35°	6207.2	4996.6	2150.4	1799.4	1989.8	2106.3	2141.0	2093.7	1958.4	1952.1	1945.8
37.5°	6240.3	4760.5	1837.1	1749.0	1972.5	2101.6	2120.5	1903.3	1783.6	1728.5	1714.3
40°	6325.3	4485.0	1630.9	1711.2	1971.0	2137.8	2027.6	1807.2	1577.4	1470.3	1462.5
42.5°	6438.6	4214.2	1505.0	1687.6	1989.8	2192.9	1989.8	1671.8	1421.5	1358.6	1349.1
45°	6607.1	3904.1	1435.7	1676.6	2018.2	2213.4	1977.2	1572.7	1358.6	1308.2	1308.2
47.5°	6797.6	3608.2	1397.9	1668.7	2054.4	2199.2	1865.5	1541.2	1328.7	1335.0	1364.9
50°	6986.5	3351.6	1369.6	1651.4	2085.9	2191.3	1819.8	1539.6	1336.5	1416.8	1470.3
52.5°	7205.3	3170.5	1335.0	1623.0	2085.9	2141.0	1805.7	1571.1	1358.6	1382.2	1405.8
55°	7469.8	3113.9	1290.9	1561.6	2048.1	2015.0	1797.8	1616.7	1374.3	1319.2	1328.7
57.5°	7819.3	3205.2	1248.4	1484.5	1961.5	1884.4	1794.6	1629.3	1338.1	1292.5	1283.0
60°	8225.4	3386.2	1235.8	1405.8	1843.4	1772.6	1775.7	1593.1	1287.7	1240.5	1248.4
62.5°	8510.4	3494.8	1227.9	1346.0	1714.3	1649.8	1730.1	1549.1	1265.7	1224.8	1232.6
65°	8510.4	3362.6	1155.5	1254.7	1547.5	1501.8	1675.0	1494.0	1237.4	1190.1	1182.3
67.5°	8187.6	2976.9	1045.3	1117.7	1363.3	1333.4	1597.9	1427.8	1194.8	1158.6	1139.8
70°	7347.0	2257.5	906.8	957.1	1130.3	1157.1	1498.7	1338.1	1124.0	1079.9	1051.6
71°	6977.0	1966.2	848.5	875.3	1040.6	1079.9	1451.5	1300.3	1092.5	1029.6	979.2
72.5°	6263.9	1656.1	760.4	771.4	889.4	960.3	1352.3	1227.9	1032.7	943.0	886.3
75°	4758.9	1209.0	612.4	606.1	658.0	761.9	1144.5	1094.1	905.2	784.0	750.9
77.5°	2056.0	658.0	458.1	462.8	447.1	577.7	900.5	939.8	776.1	637.6	607.7
80°	623.4	379.4	313.3	319.6	299.1	387.3	634.4	736.7	623.4	495.9	455.0
82.5°	319.6	226.7	214.1	210.9	190.5	218.8	384.1	503.8	445.5	310.1	273.9
85°	138.5	121.2	105.5	102.3	89.7	78.7	137.0	251.9	236.1	173.2	165.3
87.5°	34.6	31.5	20.5	18.9	11.0	1.6	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)