

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: P453674

Luminaire Tested: **GALN-SA4D-727-U-AFL**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453674
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-SA4D-727-U-AFL
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 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: 25844 lumens
Efficiency: N/A
Efficacy: 105.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G2

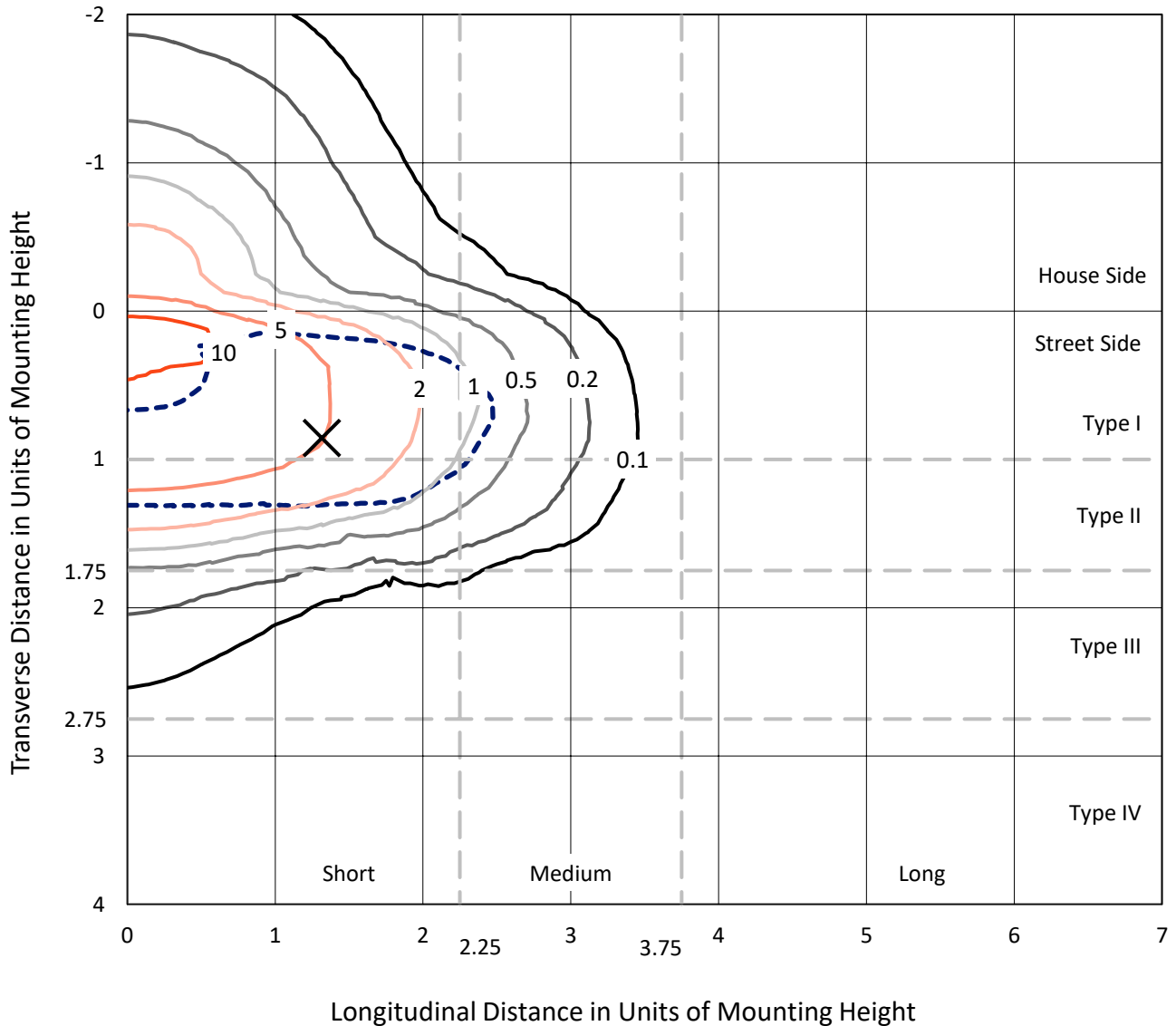
Input Watts (W): 245
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P453674
 CATALOG NUMBER: GALN-SA4D-727-U-AFL

Iso-Footcandle Lines of Horizontal Illumination

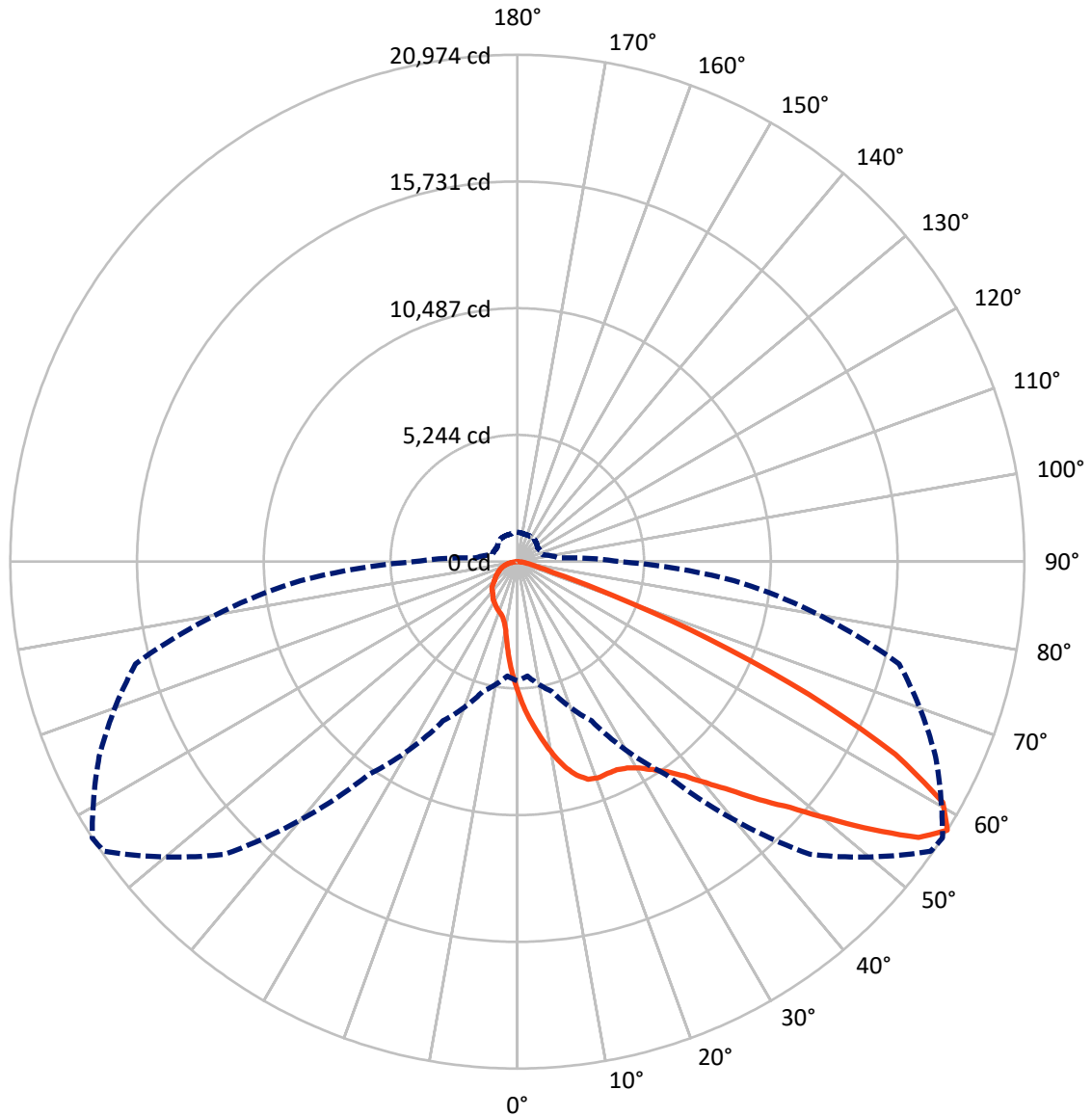
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.2 fc
 Type II - Short - N/A

REPORT NUMBER: P453674
CATALOG NUMBER: GALN-SA4D-727-U-AFL

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	3930.1	0.0	3930.1
	% Fixture	15.2	0.0	15.2
Street Side	Lumens	21913.9	0.0	21913.9
	% Fixture	84.8	0.0	84.8
Total	Lumens	25844.0	0.0	25844.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	521.8	2.0
10°-20°	1537.9	6.0
20°-30°	2553.7	9.9
30°-40°	3846.5	14.9
40°-50°	5775.2	22.3
50°-60°	6473.3	25.0
60°-70°	3788.5	14.7
70°-80°	1120.6	4.3
80°-90°	226.5	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°	25844.0	100.0
0°-180°	25844.0	100.0

Coefficient of Utilization



REPORT NUMBER: P453674

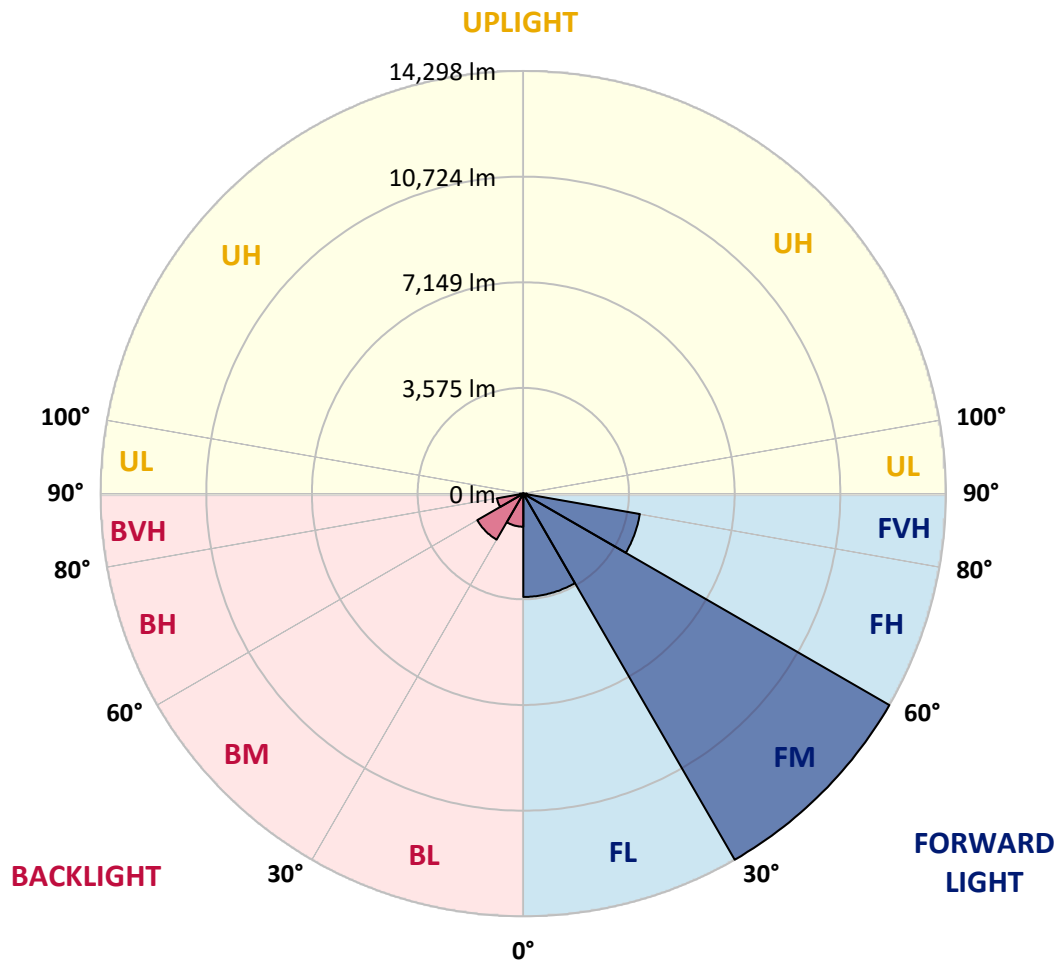
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3493.5	13.5			
FM	(30°-60°)	14298.0	55.3			
FH	(60°-80°)	4004.8	15.5			G2/5000
FVH	(80°-90°)	117.5	0.5			G2/225
BL	(0°-30°)	1119.8	4.3	B3/2500		
BM	(30°-60°)	1797.0	7.0	B2/2500		
BH	(60°-80°)	904.3	3.5	B2/1000		G2/1000
BVH	(80°-90°)	109.0	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-G2

Type II Short





REPORT NUMBER: P453674

CATALOG NUMBER: GALN-SA4D-727-U-AFL

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	5429.5	5429.5	5429.5	5429.5	5429.5	5429.5	5429.5	5429.5	5429.5	5429.5	5429.5
2.5°	6746.6	6673.0	6615.0	6564.1	6497.6	6317.9	6138.3	6135.5	5992.6	5771.9	5545.5
5°	7845.8	7746.8	7759.5	7601.1	7442.6	7182.3	6801.8	6782.0	6477.8	6064.7	5644.6
7.5°	8561.6	8563.0	8523.4	8432.9	8261.7	7966.0	7534.6	7437.0	7014.0	6387.3	5757.7
10°	8524.8	8563.0	8629.5	8707.3	8759.7	8614.0	8220.7	8101.9	7551.5	6777.7	5883.6
12.5°	8035.4	8094.8	8189.6	8384.8	8700.3	8940.8	8806.4	8710.2	8174.0	7166.8	6022.3
15°	7729.8	7765.2	7817.5	7949.1	8288.6	8864.4	9212.4	9161.4	8761.1	7606.7	6177.9
17.5°	7636.4	7671.8	7688.8	7769.4	8011.3	8601.2	9372.2	9462.8	9281.7	8011.3	6334.9
20°	7729.8	7746.8	7746.8	7794.9	7984.4	8447.0	9365.2	9547.7	9708.9	8496.5	6482.0
22.5°	7974.5	7981.6	7971.7	7988.7	8130.1	8489.5	9298.7	9525.0	10054.1	8908.2	6596.6
25°	8372.1	8383.4	8318.3	8278.7	8382.0	8676.2	9335.5	9543.4	10324.3	9301.5	6673.0
27.5°	8823.3	8837.5	8758.3	8666.3	8714.4	8906.8	9479.7	9666.5	10526.6	9689.1	6721.1
30°	9376.5	9382.1	9249.2	9138.8	9107.7	9250.6	9725.9	9899.9	10778.4	10146.1	6793.3
32.5°	9942.3	9984.8	9813.6	9658.0	9605.7	9649.5	10089.5	10257.8	11078.3	10637.0	6909.3
35°	10711.9	10719.0	10513.9	10324.3	10151.7	10208.3	10554.9	10676.6	11492.8	11204.2	7073.4
37.5°	11672.5	11737.6	11454.6	11101.0	10888.8	10806.7	11117.9	11250.9	12074.3	11900.3	7321.0
40°	12739.2	12763.2	12521.3	12300.6	11913.0	11675.3	11890.4	12034.7	12791.5	12730.7	7608.1
42.5°	13409.7	13462.1	13480.5	13457.8	13166.4	12767.5	12849.5	12917.4	13640.3	13510.2	7902.4
45°	13636.1	13713.9	13977.0	14534.4	14565.5	14172.2	13981.2	14046.3	14565.5	14296.7	8183.9
47.5°	13261.2	13394.2	13879.4	15022.5	15878.3	15908.0	15332.3	15189.4	15408.7	14948.9	8387.6
50°	12292.1	12320.4	13063.1	14718.3	16493.7	17567.5	16971.9	16705.9	16209.4	15431.3	8527.7
52.5°	10792.6	10825.1	11447.6	13305.0	16114.6	18727.5	18890.2	18414.8	17022.8	15806.2	8619.6
55°	8011.3	8199.5	8884.2	10679.4	14317.9	18618.6	20415.2	20145.0	18006.0	16103.3	8763.9
57.5°	4925.9	4753.3	5565.3	7265.8	10768.5	17121.8	20886.3	20974.0	19088.2	16352.2	9005.8
60°	2266.3	2300.3	2635.5	3747.5	6564.1	13394.2	19672.5	20227.0	19686.6	16343.8	9066.7
62.5°	1561.8	1530.7	1445.8	1645.3	2993.5	8471.1	16616.8	17556.1	18487.0	15835.9	8824.8
65°	1396.3	1365.2	1201.1	1145.9	1375.1	3692.3	12079.9	13265.4	15565.7	14554.2	8222.1
67.5°	1304.3	1261.9	1092.1	984.6	981.8	1469.8	7122.9	8550.3	11545.2	12304.9	7124.3
70°	1208.1	1174.2	1005.8	887.0	836.1	923.8	3130.7	4098.3	7496.4	8867.2	5549.8
72.5°	1111.9	1072.3	921.0	793.6	727.1	691.8	1199.6	1560.4	4235.5	5316.4	3402.3
75°	971.9	952.1	823.3	718.7	646.5	558.8	761.1	868.6	2025.8	2441.7	1707.5
77.5°	850.2	829.0	731.4	628.1	575.8	454.1	540.4	589.9	854.5	990.3	771.0
80°	622.5	643.7	616.8	554.6	513.5	356.5	363.6	404.6	507.9	561.6	471.1
82.5°	394.7	434.3	475.3	427.2	389.0	281.5	251.8	267.4	346.6	367.8	209.4
85°	165.5	168.3	275.9	260.3	222.1	166.9	151.4	159.9	185.3	193.8	97.6
87.5°	63.7	62.2	97.6	90.5	69.3	48.1	48.1	53.8	73.6	67.9	31.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P453674
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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5429.5	5429.5	5429.5	5429.5	5429.5	5429.5	5429.5	5429.5	5429.5	5429.5	5429.5
2.5°	5447.9	5347.5	5148.0	4900.4	4719.4	4515.6	4336.0	4207.2	4159.1	4136.5	4094.1
5°	5443.7	5245.6	4832.5	4399.6	4051.6	3695.1	3393.8	3198.6	3181.6	3051.5	3038.7
7.5°	5445.1	5142.3	4484.5	3847.9	3317.4	2952.4	2703.4	2638.4	2560.6	2540.8	2550.7
10°	5449.3	5010.8	4111.1	3301.9	2788.3	2549.2	2455.9	2430.4	2433.2	2441.7	2443.1
12.5°	5455.0	4883.5	3723.4	2887.4	2491.2	2392.2	2382.3	2405.0	2429.0	2447.4	2451.6
15°	5462.1	4737.8	3345.7	2553.5	2342.7	2334.2	2366.8	2405.0	2438.9	2465.8	2470.0
17.5°	5453.6	4568.0	3028.8	2348.4	2260.7	2301.7	2355.4	2403.5	2434.7	2460.1	2463.0
20°	5433.8	4378.4	2723.3	2204.1	2209.7	2276.2	2334.2	2379.5	2413.4	2426.2	2436.1
22.5°	5357.4	4152.1	2457.3	2092.3	2148.9	2240.8	2310.2	2337.0	2298.8	2272.0	2279.0
25°	5227.2	3857.8	2209.7	2001.8	2093.7	2191.3	2262.1	2197.0	2165.9	2154.6	2160.2
27.5°	5064.5	3535.3	2023.0	1907.0	2023.0	2136.2	2116.4	2105.0	2090.9	2072.5	2076.7
30°	4889.1	3219.8	1864.5	1833.4	1946.6	2011.7	2020.2	2038.5	2023.0	1994.7	2006.0
32.5°	4726.4	2922.7	1744.3	1771.2	1892.8	1882.9	1946.6	1967.8	1895.7	1800.9	1805.1
35°	4587.8	2646.9	1653.8	1710.3	1800.9	1805.1	1868.8	1795.2	1717.4	1672.1	1675.0
37.5°	4483.1	2431.8	1594.3	1658.0	1683.5	1737.2	1703.3	1665.1	1655.2	1624.0	1625.5
40°	4420.9	2243.7	1556.1	1617.0	1612.7	1649.5	1540.6	1578.8	1592.9	1583.0	1584.4
42.5°	4358.6	2110.7	1516.5	1560.4	1559.0	1486.8	1462.8	1495.3	1532.1	1536.3	1533.5
45°	4309.1	2007.4	1475.5	1474.1	1502.4	1389.2	1382.1	1401.9	1454.3	1479.8	1478.3
47.5°	4253.9	1921.1	1413.3	1373.7	1382.1	1328.4	1317.1	1325.6	1389.2	1430.2	1441.6
50°	4184.6	1834.8	1335.5	1281.7	1246.3	1271.8	1274.6	1276.0	1339.7	1386.4	1396.3
52.5°	4129.4	1769.8	1246.3	1206.7	1164.3	1220.9	1242.1	1244.9	1283.1	1321.3	1328.4
55°	4162.0	1733.0	1158.6	1130.3	1092.1	1168.5	1209.5	1215.2	1223.7	1252.0	1256.2
57.5°	4259.6	1741.5	1087.9	1051.1	1022.8	1106.3	1175.6	1179.8	1174.2	1208.1	1213.8
60°	4289.3	1737.2	1035.5	963.4	946.4	1039.8	1126.1	1134.6	1133.2	1182.7	1192.6
62.5°	4164.8	1683.5	983.2	889.8	878.5	971.9	1056.8	1090.7	1097.8	1168.5	1181.3
65°	3872.0	1573.1	913.9	812.0	812.0	899.7	990.3	1037.0	1056.8	1151.5	1165.7
67.5°	3485.8	1443.0	843.1	745.5	742.7	830.4	919.5	967.6	998.8	1127.5	1136.0
70°	2893.0	1267.6	755.4	673.4	673.4	752.6	833.2	891.2	936.5	1082.2	1082.2
72.5°	1982.0	1053.9	649.3	591.3	592.7	666.3	748.4	813.4	867.2	991.7	994.5
75°	1253.4	823.3	533.3	503.6	509.3	578.6	663.5	731.4	838.9	980.4	984.6
77.5°	666.3	578.6	424.4	417.3	424.4	488.1	582.8	676.2	841.7	850.2	836.1
80°	431.5	410.3	335.3	321.1	324.0	393.3	519.2	642.3	676.2	684.7	653.6
82.5°	234.8	260.3	237.7	223.5	223.5	307.0	442.8	510.7	485.2	403.2	384.8
85°	100.4	121.7	123.1	107.5	103.3	189.6	297.1	278.7	258.9	247.6	244.7
87.5°	28.3	39.6	39.6	29.7	22.6	52.3	59.4	17.0	0.0	1.4	2.8
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)