

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: P650869

Luminaire Tested: **GALN-SA4C-840-U-T2R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P650869
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA4C-840-U-T2R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23837.3 lumens
Efficiency: N/A
Efficacy: 111.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

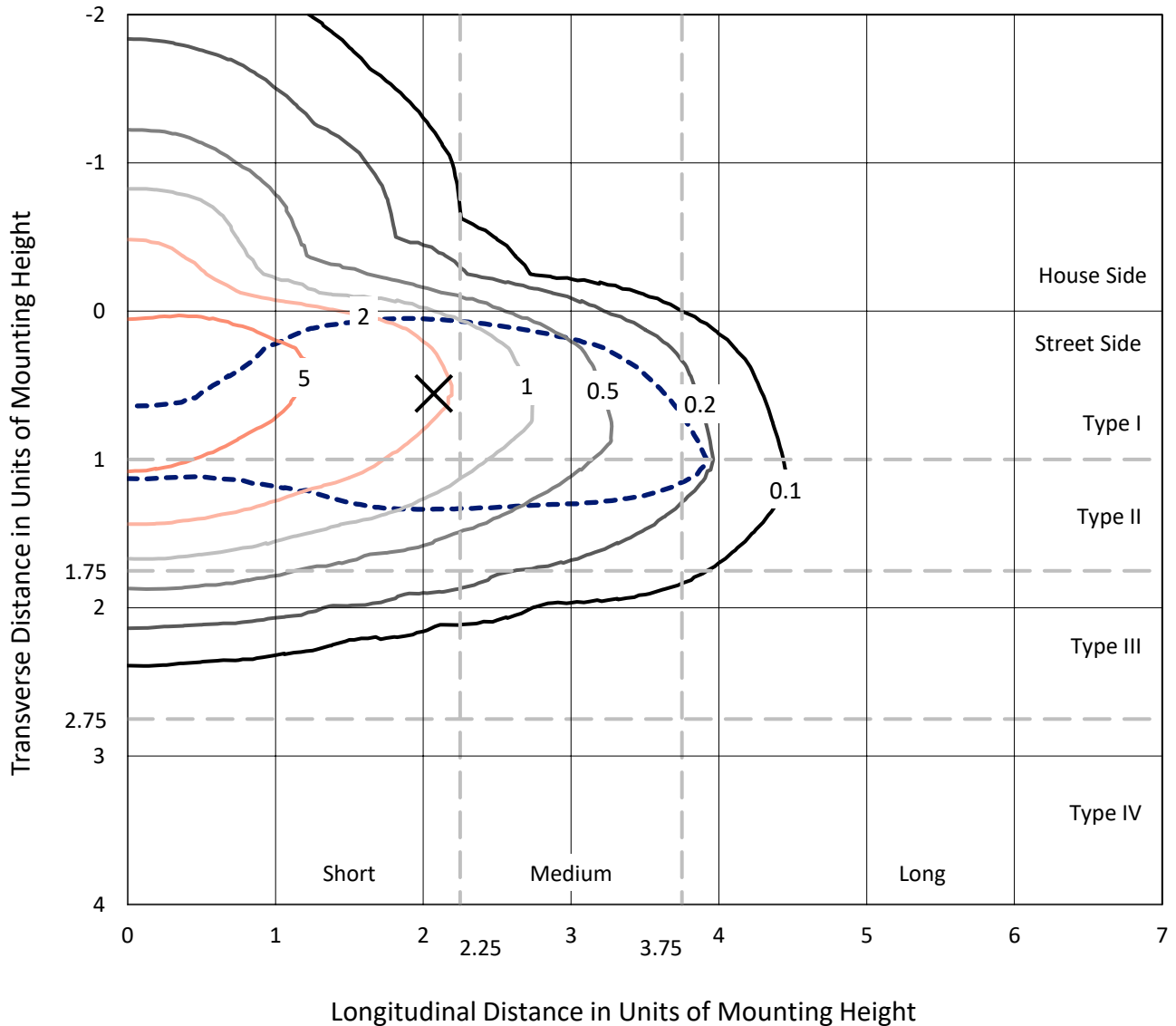
Input Watts (W): 213
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

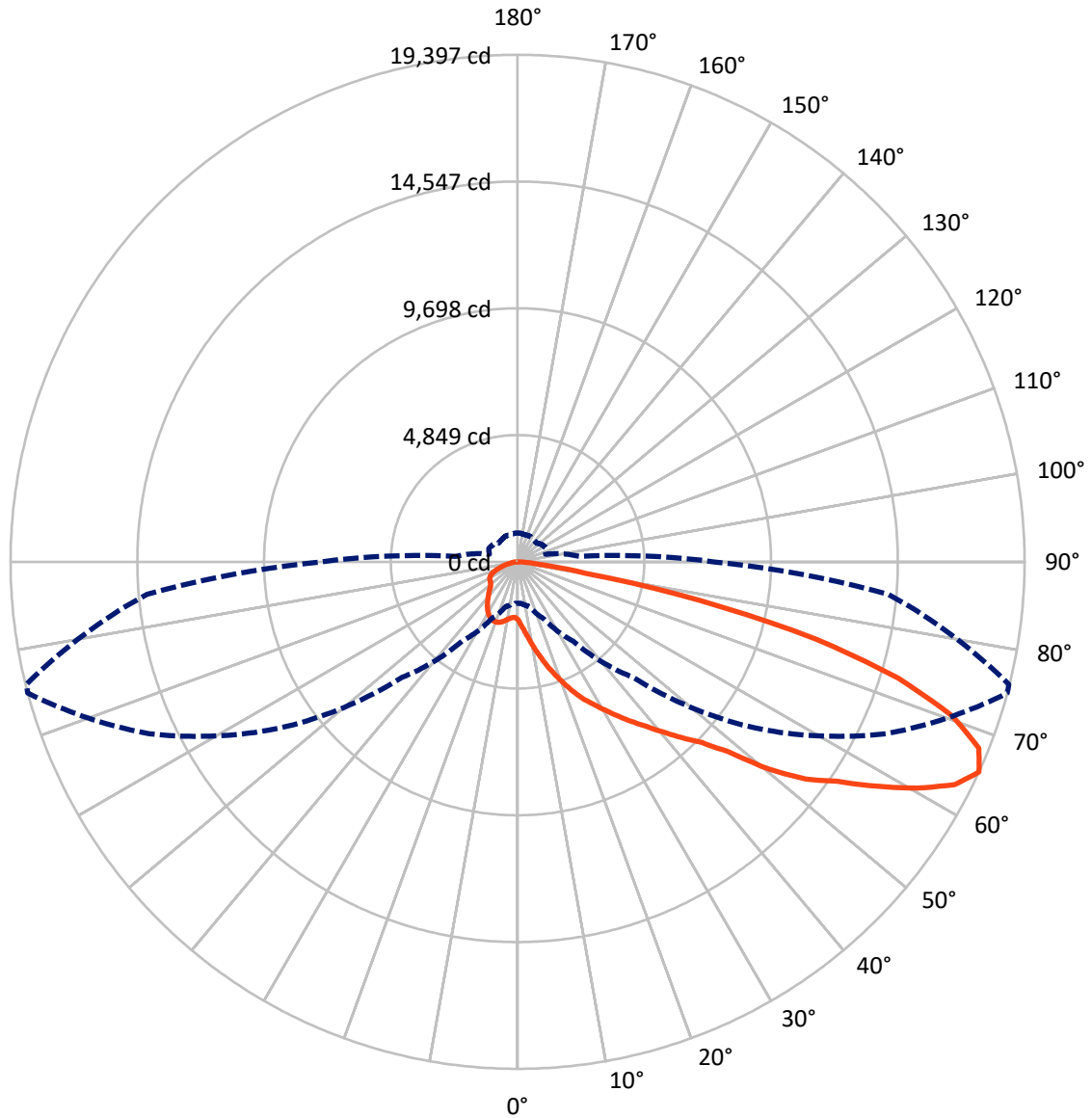
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.2 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4007.4	0.0	4007.4
	% Fixture	16.8	0.0	16.8
Street Side	Lumens	19829.9	0.0	19829.9
	% Fixture	83.2	0.0	83.2
Total	Lumens	23837.3	0.0	23837.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	269.1	1.1
10°-20°	1054.0	4.4
20°-30°	2035.9	8.5
30°-40°	3307.0	13.9
40°-50°	4549.1	19.1
50°-60°	5370.9	22.5
60°-70°	4705.8	19.7
70°-80°	2246.6	9.4
80°-90°	298.9	1.3
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°	23837.3	100.0
0°-180°	23837.3	100.0

Coefficient of Utilization



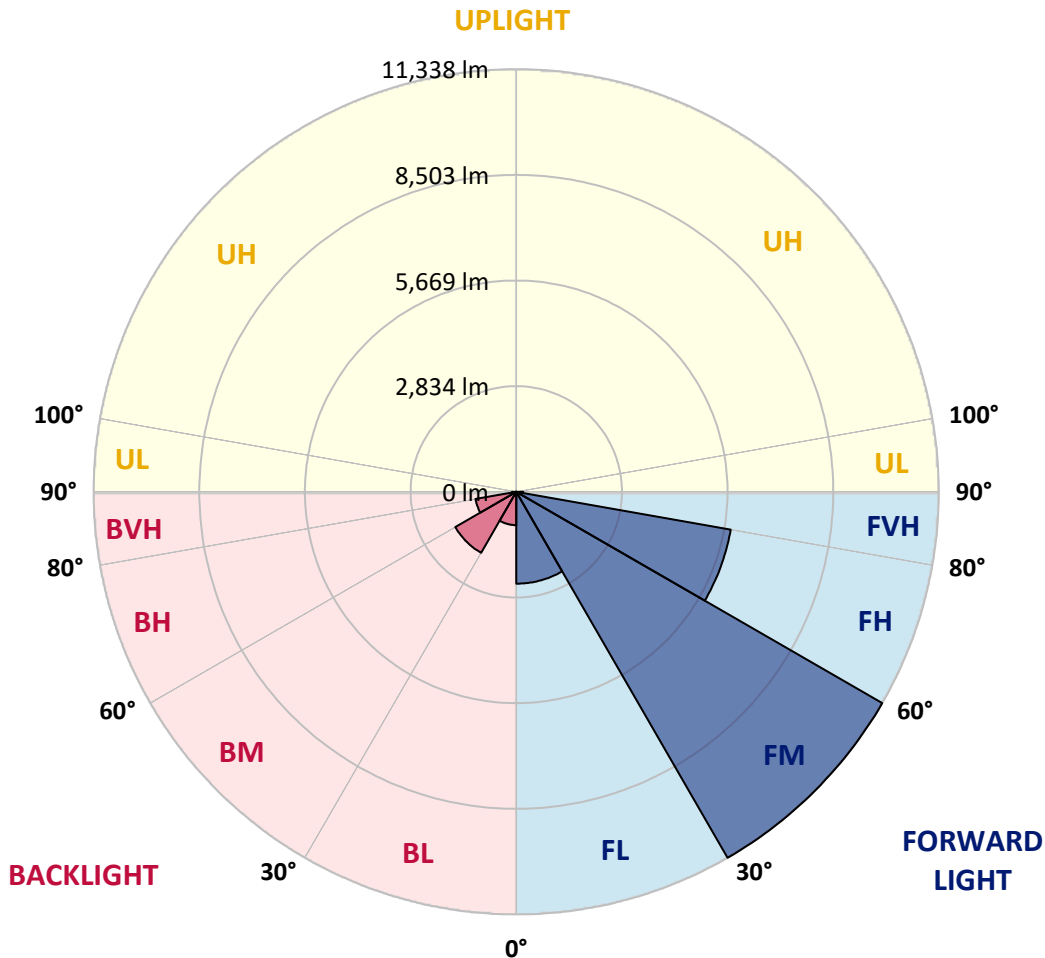
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2464.4	10.3			
FM (30°-60°)	11337.5	47.6			
FH (60°-80°)	5841.2	24.5			G3/7500
FVH (80°-90°)	186.8	0.8			G2/225
BL (0°-30°)	894.6	3.8	B2/1000		
BM (30°-60°)	1889.4	7.9	B2/2500		
BH (60°-80°)	1111.2	4.7	B3/2500		G3/2500
BVH (80°-90°)	112.1	0.5			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	2214.8	2214.8	2214.8	2214.8	2214.8	2214.8	2214.8	2214.8	2214.8	2214.8	2214.8
2.5°	2942.7	2923.3	2902.6	2845.8	2785.0	2716.4	2618.2	2523.8	2398.4	2394.5	2301.4
5°	3758.5	3745.6	3653.8	3600.8	3459.9	3272.4	3113.4	2866.5	2637.5	2610.5	2429.4
7.5°	4508.4	4458.1	4423.1	4327.4	4187.8	3947.3	3639.6	3306.1	2923.3	2887.1	2587.2
10°	5073.4	5068.3	5050.2	4967.5	4862.7	4623.5	4282.2	3803.8	3285.4	3214.2	2778.5
12.5°	5496.3	5500.1	5497.5	5496.3	5421.3	5218.2	4848.4	4344.3	3651.2	3600.8	2999.6
15°	5774.2	5813.0	5828.6	5893.1	5899.6	5763.9	5445.8	4866.6	4063.7	3988.7	3237.5
17.5°	5957.8	5977.2	6049.6	6159.5	6248.7	6224.2	5941.0	5350.1	4485.1	4359.7	3484.4
20°	6133.7	6167.3	6222.9	6372.8	6530.6	6603.0	6403.9	5845.4	4902.8	4822.6	3757.3
22.5°	6499.6	6547.4	6566.8	6643.1	6777.5	6905.5	6815.0	6319.9	5360.4	5251.9	4046.9
25°	7118.9	7169.3	7114.9	7096.9	7140.8	7204.2	7184.8	6767.2	5792.3	5637.1	4321.0
27.5°	7925.7	7932.1	7826.1	7725.3	7616.6	7584.3	7524.8	7164.1	6167.3	6038.0	4596.4
30°	8791.9	8760.9	8585.0	8402.8	8219.2	8038.1	7867.5	7546.8	6584.9	6436.2	4866.6
32.5°	9596.1	9579.3	9384.0	9101.0	8790.6	8619.9	8274.8	7933.4	7032.3	6888.7	5144.6
35°	10198.6	10223.2	10008.6	9699.6	9360.8	9209.5	8773.8	8339.4	7495.1	7338.7	5447.1
37.5°	10626.5	10613.7	10423.6	10155.9	9858.5	9726.7	9356.9	8782.9	7992.9	7842.9	5778.1
40°	10779.2	10771.4	10630.5	10435.2	10246.5	10199.9	9967.2	9261.3	8563.1	8387.2	6176.3
42.5°	10682.2	10698.9	10605.9	10552.9	10518.0	10551.6	10573.6	9888.3	9185.0	9023.3	6608.2
45°	10384.8	10375.8	10362.8	10449.4	10646.0	10867.1	11173.5	10480.5	9861.1	9731.9	7187.4
47.5°	9853.4	9918.1	9950.4	10189.6	10618.8	11142.5	11863.9	11274.4	10842.5	10730.0	8070.5
50°	9110.0	9161.7	9353.0	9778.4	10418.4	11245.9	12538.8	12572.4	12479.3	12268.6	9029.8
52.5°	7949.0	8029.1	8423.5	9203.1	10007.2	11203.2	12947.4	13685.7	13808.5	13650.8	9974.9
55°	6649.5	6762.0	7178.4	8201.0	9441.0	10970.5	13229.3	14330.8	14820.9	14674.8	10885.1
57.5°	5377.3	5496.3	5924.2	6914.6	8453.1	10455.9	13414.1	15049.7	16199.1	16009.0	12017.8
60°	4030.1	4154.2	4521.4	5541.5	7046.5	9450.0	13288.7	15672.9	17576.1	17494.7	13151.6
62.5°	2600.1	2737.1	3056.4	3900.7	5416.0	8075.6	12617.7	16016.8	18768.2	18669.9	13979.1
65°	1583.9	1599.3	1775.2	2421.7	3706.8	6252.6	11083.0	15560.4	19396.5	19366.8	14231.2
67.5°	1024.0	1048.6	1128.7	1450.6	2222.5	4342.9	8861.7	14054.1	19029.3	19019.0	13710.2
70°	865.0	872.7	909.0	978.8	1291.6	2633.7	6222.9	11653.1	17634.3	17634.3	12457.4
72.5°	773.1	783.5	796.4	818.5	921.8	1492.0	3713.3	9071.2	15225.5	15326.4	10603.3
75°	702.1	699.5	707.2	711.1	786.1	974.9	1920.0	6709.0	11778.5	11576.9	7678.7
77.5°	601.2	605.1	601.2	618.1	694.3	742.2	974.9	4502.0	7138.2	6877.1	3854.2
80°	493.9	500.4	506.8	517.1	593.5	563.7	585.7	2051.9	2640.2	2584.6	1190.8
82.5°	371.0	380.1	390.5	415.0	466.8	372.4	369.8	876.6	952.9	872.7	438.3
85°	150.0	177.1	267.6	292.2	293.5	204.3	227.6	365.9	389.1	380.1	172.0
87.5°	34.9	41.4	86.6	130.6	120.3	76.3	84.0	118.9	135.7	125.4	58.2
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°	2214.8	2214.8	2214.8	2214.8	2214.8	2214.8	2214.8	2214.8	2214.8	2214.8	2214.8
2.5°	2258.8	2213.5	2135.9	2076.4	2033.8	1996.3	1973.0	1958.8	1953.6	1952.3	1953.6
5°	2335.0	2254.9	2132.0	2054.5	2011.8	1987.2	1973.0	1971.7	1973.0	1974.3	1970.5
7.5°	2439.7	2324.7	2164.4	2092.0	2059.6	2041.5	2035.1	2032.4	2033.8	2032.4	2032.4
10°	2579.4	2421.7	2227.7	2152.7	2125.5	2104.9	2094.5	2088.1	2082.9	2077.8	2075.2
12.5°	2733.2	2529.0	2296.3	2223.9	2185.1	2152.7	2129.4	2112.7	2101.0	2089.4	2086.8
15°	2905.2	2642.8	2372.5	2271.7	2216.1	2168.3	2128.2	2101.0	2080.3	2063.5	2062.2
17.5°	3069.4	2750.1	2424.3	2293.7	2212.2	2145.0	2092.0	2054.5	2028.6	2006.6	2004.0
20°	3245.3	2852.2	2447.5	2279.4	2173.4	2092.0	2022.1	1976.9	1947.2	1922.6	1918.7
22.5°	3422.4	2938.8	2445.0	2234.2	2106.2	2010.5	1936.8	1889.0	1854.1	1829.5	1820.4
25°	3591.7	3008.7	2412.6	2161.8	2013.1	1913.5	1838.5	1794.6	1763.6	1733.8	1733.8
27.5°	3744.3	3050.1	2351.9	2073.8	1917.4	1812.7	1753.2	1713.1	1684.7	1665.3	1653.7
30°	3894.3	3069.4	2269.1	1962.6	1816.6	1727.3	1679.5	1656.3	1630.4	1608.4	1605.8
32.5°	4028.7	3065.5	2165.7	1854.1	1720.9	1657.5	1638.1	1620.0	1592.9	1561.8	1554.1
35°	4159.3	3039.7	2042.8	1735.2	1640.7	1616.1	1621.4	1595.5	1546.3	1507.6	1501.1
37.5°	4301.5	2993.1	1908.4	1638.1	1573.5	1596.8	1609.7	1552.8	1472.7	1411.9	1397.7
40°	4465.8	2940.1	1768.7	1541.1	1520.4	1578.6	1578.6	1473.9	1364.0	1326.5	1316.2
42.5°	4658.4	2896.2	1652.4	1459.7	1476.5	1534.7	1528.3	1369.2	1324.0	1304.6	1299.4
45°	4963.6	2880.7	1532.1	1388.6	1440.3	1483.0	1430.0	1333.0	1307.2	1291.6	1286.5
47.5°	5445.8	2898.8	1426.1	1335.6	1398.9	1431.3	1320.1	1308.4	1290.3	1268.4	1265.8
50°	5893.1	2881.9	1351.2	1305.8	1362.8	1369.2	1274.8	1278.7	1268.4	1243.8	1238.6
52.5°	6259.1	2829.0	1303.3	1290.3	1331.7	1260.6	1232.1	1246.4	1242.5	1211.5	1206.3
55°	6661.1	2796.6	1280.0	1290.3	1311.0	1166.2	1192.1	1212.8	1207.6	1185.6	1184.3
57.5°	7148.6	2803.1	1263.2	1294.2	1290.3	1118.4	1152.0	1176.6	1175.3	1168.8	1168.8
60°	7647.6	2805.7	1237.4	1293.0	1265.8	1080.9	1110.6	1145.5	1148.1	1152.0	1152.0
62.5°	7813.1	2693.1	1186.9	1269.7	1211.5	1044.7	1071.9	1119.7	1117.1	1127.4	1128.7
65°	7504.2	2381.5	1111.9	1216.7	1141.7	1018.8	1042.1	1086.1	1071.9	1099.0	1104.1
67.5°	6830.5	1970.5	995.6	1121.0	1064.1	991.7	1022.7	1039.5	1013.7	1066.6	1068.0
70°	5903.5	1538.6	848.1	985.2	976.1	963.2	1007.2	981.4	945.1	1009.8	996.8
72.5°	4936.4	1175.3	677.5	805.5	858.5	920.6	980.0	906.3	855.9	875.3	852.0
75°	3708.1	868.8	544.3	630.9	715.0	859.8	955.5	815.9	738.2	720.1	715.0
77.5°	1890.2	567.6	407.3	471.9	536.6	777.1	921.8	709.8	611.6	583.1	570.2
80°	674.9	353.0	287.0	325.8	362.1	668.4	805.5	587.0	474.5	469.4	474.5
82.5°	312.9	227.6	192.7	213.4	214.6	446.1	614.2	438.3	360.7	548.2	462.9
85°	134.5	113.8	108.6	106.1	98.2	199.1	345.2	235.3	367.2	164.2	151.3
87.5°	40.1	45.2	40.1	29.8	22.0	22.0	34.9	13.0	9.1	6.5	6.5
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)