

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: P452994

Luminaire Tested: **GALN-SA4A-727-U-T2R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P452994
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-SA4A-727-U-T2R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15419 lumens
Efficiency: N/A
Efficacy: 127.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

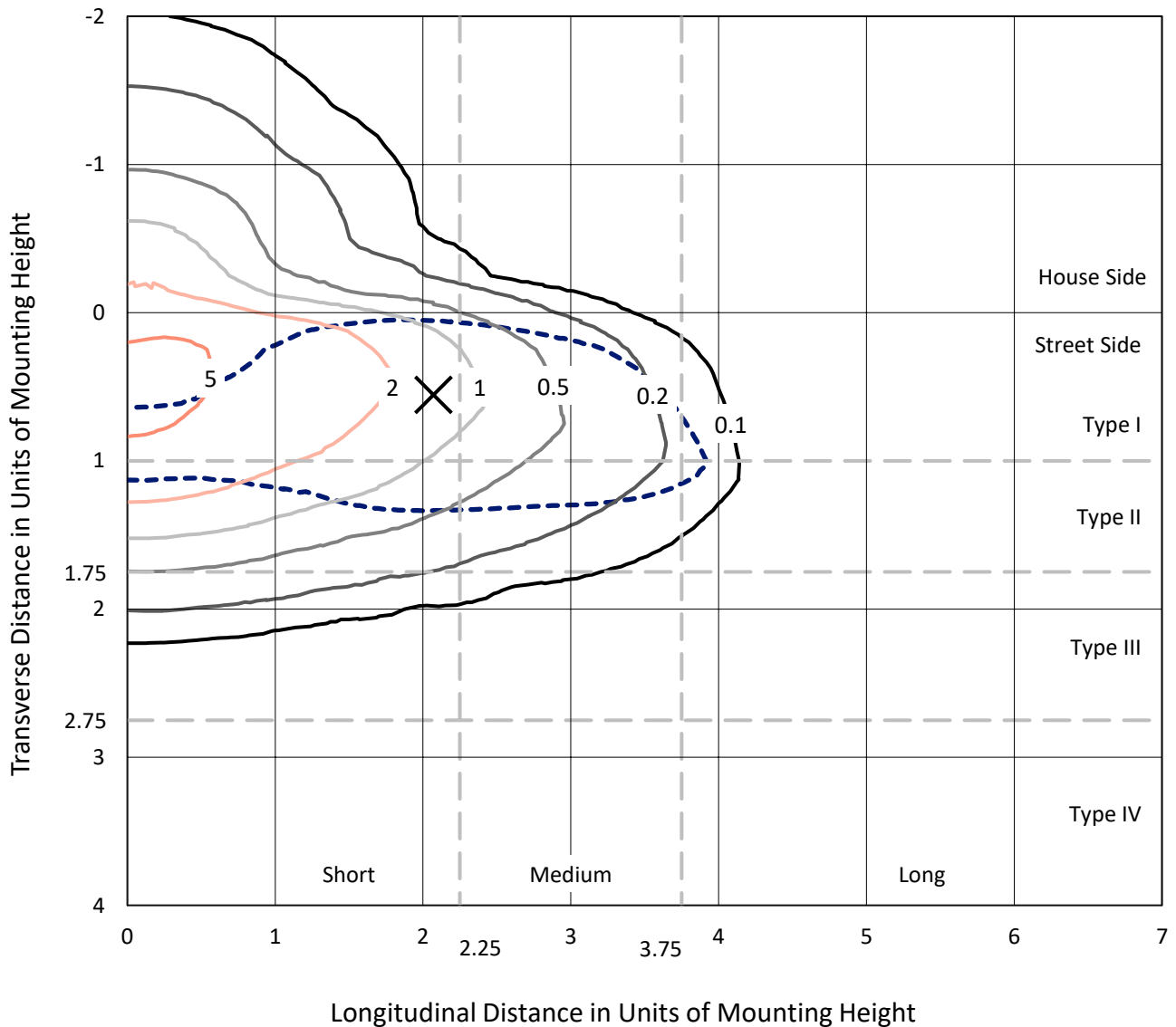
Input Watts (W): 121
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

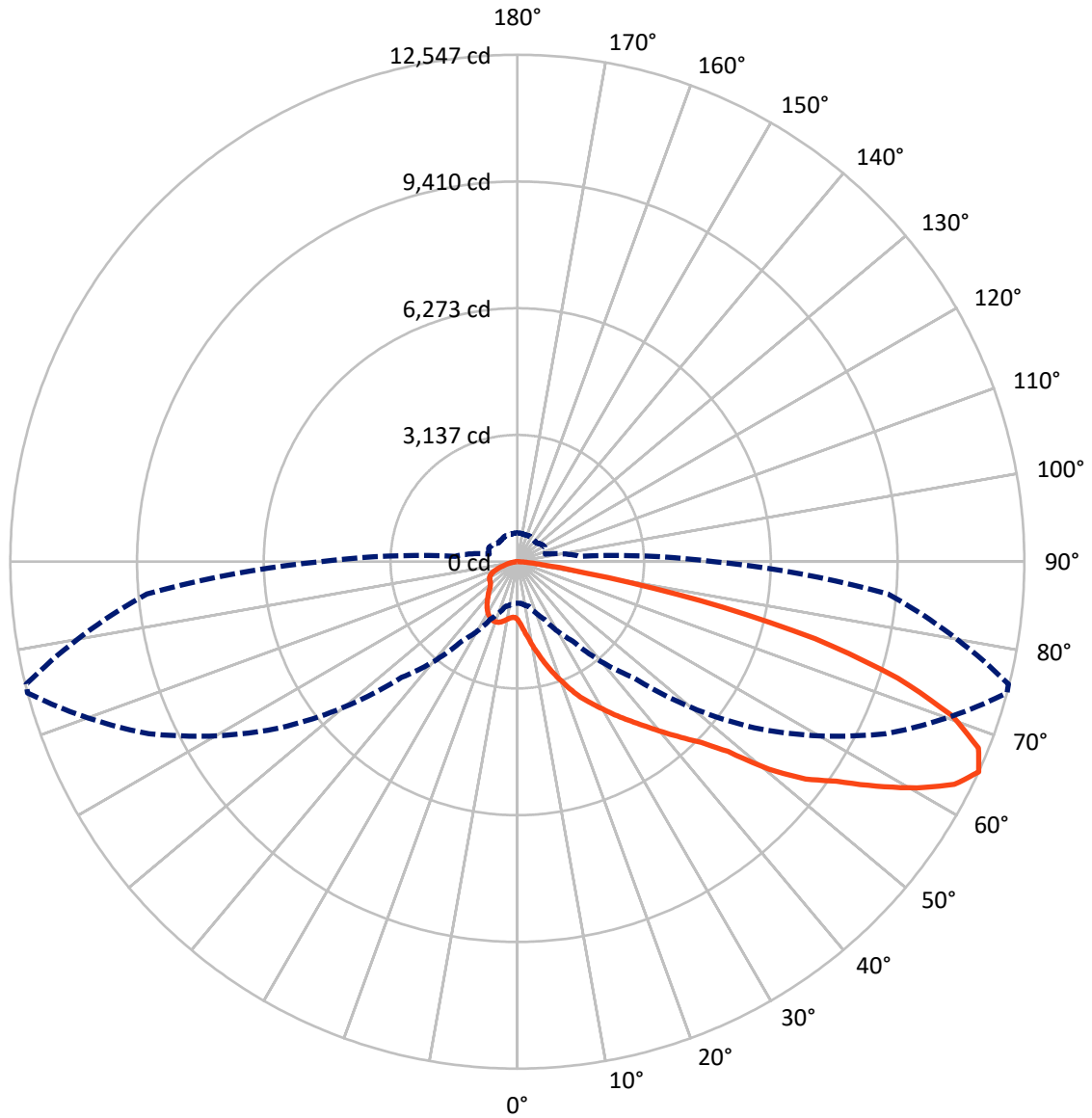
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6 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	2592.1	0.0	2592.1
	% Fixture	16.8	0.0	16.8
Street Side	Lumens	12826.9	0.0	12826.9
	% Fixture	83.2	0.0	83.2
Total	Lumens	15419.0	0.0	15419.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	174.1	1.1
10°-20°	681.8	4.4
20°-30°	1316.9	8.5
30°-40°	2139.1	13.9
40°-50°	2942.5	19.1
50°-60°	3474.1	22.5
60°-70°	3043.9	19.7
70°-80°	1453.2	9.4
80°-90°	193.4	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°	15419.0	100.0
0°-180°	15419.0	100.0

Coefficient of Utilization



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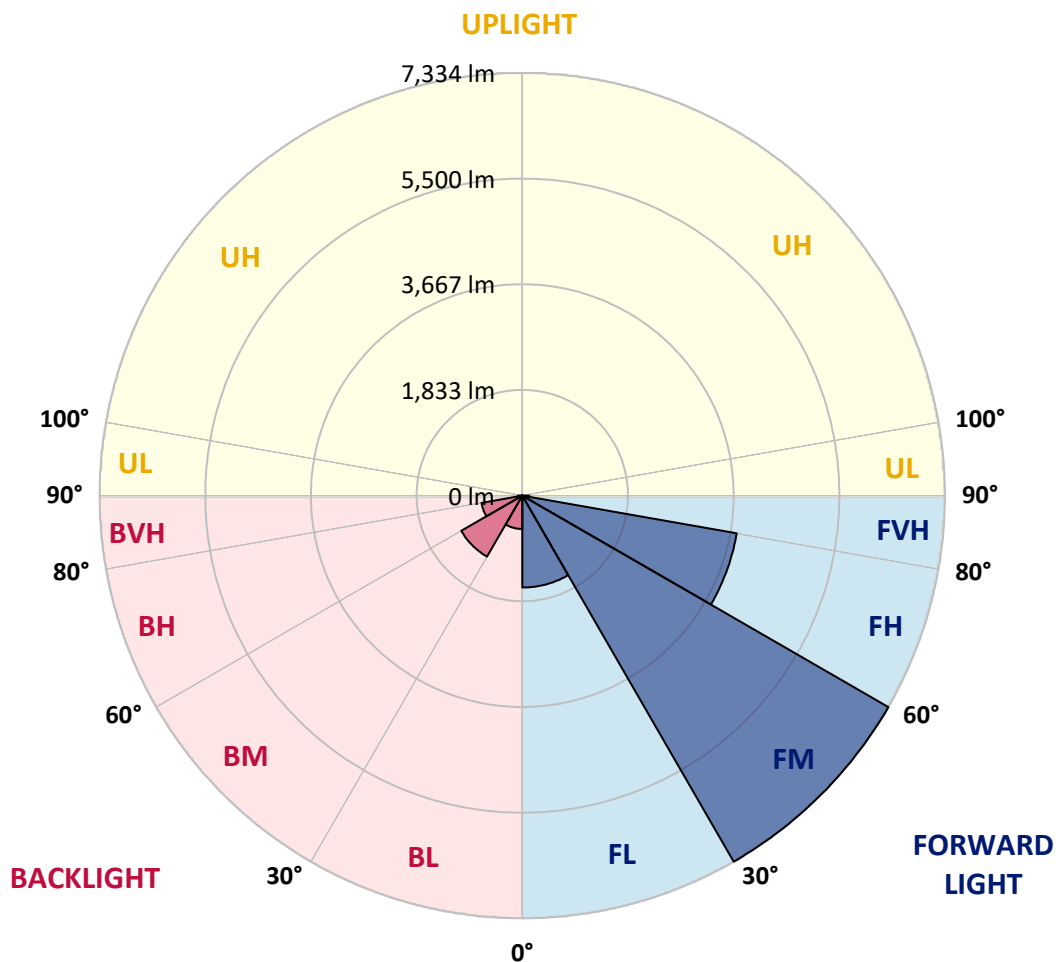
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1594.1	10.3			
FM (30°-60°)	7333.6	47.6			
FH (60°-80°)	3778.4	24.5			G2/5000
FVH (80°-90°)	120.8	0.8			G2/225
BL (0°-30°)	578.7	3.8	B2/1000		
BM (30°-60°)	1222.2	7.9	B2/2500		
BH (60°-80°)	718.8	4.7	B2/1000		G2/1000
BVH (80°-90°)	72.5	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	1432.6	1432.6	1432.6	1432.6	1432.6	1432.6	1432.6	1432.6	1432.6	1432.6	1432.6
2.5°	1903.5	1890.9	1877.5	1840.7	1801.4	1757.1	1693.6	1632.5	1551.4	1548.9	1488.7
5°	2431.2	2422.8	2363.4	2329.2	2238.0	2116.7	2013.9	1854.1	1706.1	1688.5	1571.4
7.5°	2916.3	2883.6	2861.1	2799.2	2708.8	2553.3	2354.2	2138.5	1890.9	1867.5	1673.5
10°	3281.7	3278.4	3266.7	3213.1	3145.4	2990.7	2769.9	2460.5	2125.1	2079.1	1797.3
12.5°	3555.2	3557.7	3556.0	3555.2	3506.7	3375.4	3136.2	2810.0	2361.8	2329.2	1940.3
15°	3735.0	3760.1	3770.1	3812.0	3816.1	3728.3	3522.6	3147.9	2628.6	2580.1	2094.2
17.5°	3853.8	3866.3	3913.2	3984.2	4041.9	4026.1	3842.9	3460.7	2901.2	2820.1	2253.9
20°	3967.5	3989.3	4025.2	4122.2	4224.3	4271.1	4142.3	3781.0	3171.3	3119.5	2430.4
22.5°	4204.2	4235.1	4247.7	4297.0	4384.0	4466.8	4408.3	4087.9	3467.4	3397.1	2617.7
25°	4604.8	4637.4	4602.3	4590.6	4619.0	4660.0	4647.4	4377.3	3746.7	3646.4	2795.0
27.5°	5126.7	5130.8	5062.3	4997.0	4926.8	4905.9	4867.4	4634.1	3989.3	3905.6	2973.1
30°	5687.0	5666.9	5553.2	5435.3	5316.5	5199.4	5089.0	4881.6	4259.4	4163.2	3147.9
32.5°	6207.2	6196.3	6070.0	5886.9	5686.2	5575.8	5352.5	5131.7	4548.8	4455.9	3327.7
35°	6596.9	6612.8	6474.0	6274.1	6055.0	5957.1	5675.3	5394.3	4848.2	4747.0	3523.4
37.5°	6873.7	6865.4	6742.4	6569.3	6377.0	6291.7	6052.5	5681.1	5170.1	5073.1	3737.5
40°	6972.4	6967.4	6876.2	6750.0	6627.9	6597.7	6447.2	5990.6	5539.0	5425.2	3995.1
42.5°	6909.7	6920.6	6860.4	6826.1	6803.5	6825.2	6839.4	6396.2	5941.2	5836.7	4274.4
45°	6717.3	6711.5	6703.1	6759.2	6886.3	7029.3	7227.5	6779.2	6378.6	6295.0	4649.1
47.5°	6373.6	6415.4	6436.3	6591.1	6868.7	7207.4	7674.1	7292.7	7013.4	6940.6	5220.3
50°	5892.7	5926.2	6050.0	6325.1	6739.1	7274.3	8110.7	8132.4	8072.2	7935.9	5840.9
52.5°	5141.7	5193.6	5448.6	5952.9	6473.1	7246.7	8374.9	8852.5	8931.9	8829.9	6452.2
55°	4301.2	4374.0	4643.3	5304.8	6106.8	7096.2	8557.2	9269.8	9586.8	9492.3	7041.0
57.5°	3478.3	3555.2	3832.0	4472.7	5467.9	6763.3	8676.8	9734.8	10478.3	10355.3	7773.6
60°	2606.8	2687.1	2924.6	3584.5	4558.0	6112.7	8595.7	10137.9	11369.0	11316.3	8507.1
62.5°	1681.8	1770.5	1977.1	2523.2	3503.4	5223.7	8161.7	10360.4	12140.1	12076.5	9042.3
65°	1024.5	1034.5	1148.3	1566.4	2397.7	4044.5	7169.0	10065.1	12546.5	12527.3	9205.4
67.5°	662.4	678.3	730.1	938.4	1437.6	2809.2	5732.2	9090.8	12309.0	12302.3	8868.4
70°	559.5	564.5	587.9	633.1	835.5	1703.6	4025.2	7537.8	11406.6	11406.6	8058.0
72.5°	500.1	506.8	515.2	529.4	596.3	965.1	2401.9	5867.6	9848.5	9913.8	6858.7
75°	454.1	452.5	457.5	460.0	508.5	630.6	1241.9	4339.7	7618.9	7488.4	4966.9
77.5°	388.9	391.4	388.9	399.8	449.1	480.0	630.6	2912.1	4617.3	4448.4	2493.1
80°	319.5	323.7	327.8	334.5	383.9	364.6	378.9	1327.2	1707.8	1671.8	770.3
82.5°	240.0	245.9	252.6	268.5	301.9	240.9	239.2	567.0	616.4	564.5	283.5
85°	97.0	114.6	173.1	189.0	189.8	132.1	147.2	236.7	251.7	245.9	111.2
87.5°	22.6	26.8	56.0	84.5	77.8	49.3	54.4	76.9	87.8	81.1	37.6
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°	1432.6	1432.6	1432.6	1432.6	1432.6	1432.6	1432.6	1432.6	1432.6	1432.6	1432.6
2.5°	1461.1	1431.8	1381.6	1343.1	1315.5	1291.3	1276.2	1267.0	1263.7	1262.8	1263.7
5°	1510.4	1458.5	1379.1	1328.9	1301.3	1285.4	1276.2	1275.4	1276.2	1277.1	1274.6
7.5°	1578.1	1503.7	1400.0	1353.2	1332.3	1320.6	1316.4	1314.7	1315.5	1314.7	1314.7
10°	1668.5	1566.4	1441.0	1392.5	1374.9	1361.5	1354.8	1350.7	1347.3	1344.0	1342.3
12.5°	1768.0	1635.8	1485.3	1438.5	1413.4	1392.5	1377.4	1366.6	1359.0	1351.5	1349.8
15°	1879.2	1709.4	1534.7	1469.4	1433.5	1402.5	1376.6	1359.0	1345.6	1334.8	1333.9
17.5°	1985.4	1778.9	1568.1	1483.6	1430.9	1387.5	1353.2	1328.9	1312.2	1298.0	1296.3
20°	2099.2	1844.9	1583.2	1474.4	1405.9	1353.2	1308.0	1278.7	1259.5	1243.6	1241.1
22.5°	2213.7	1901.0	1581.5	1445.2	1362.4	1300.5	1252.8	1221.9	1199.3	1183.4	1177.5
25°	2323.3	1946.1	1560.6	1398.3	1302.2	1237.8	1189.3	1160.8	1140.7	1121.5	1121.5
27.5°	2422.0	1972.9	1521.3	1341.5	1240.3	1172.5	1134.1	1108.1	1089.7	1077.2	1069.7
30°	2519.0	1985.4	1467.7	1269.5	1175.0	1117.3	1086.4	1071.3	1054.6	1040.4	1038.7
32.5°	2606.0	1982.9	1400.8	1199.3	1113.1	1072.2	1059.6	1047.9	1030.3	1010.3	1005.3
35°	2690.4	1966.2	1321.4	1122.3	1061.3	1045.4	1048.7	1032.0	1000.2	975.2	971.0
37.5°	2782.4	1936.1	1234.4	1059.6	1017.8	1032.9	1041.2	1004.4	952.6	913.3	904.1
40°	2888.7	1901.8	1144.1	996.9	983.5	1021.1	1021.1	953.4	882.3	858.1	851.4
42.5°	3013.3	1873.4	1068.8	944.2	955.1	992.7	988.5	885.7	856.4	843.8	840.5
45°	3210.6	1863.3	991.0	898.2	931.7	959.3	925.0	862.2	845.5	835.5	832.1
47.5°	3522.6	1875.0	922.5	863.9	904.9	925.8	853.9	846.4	834.6	820.4	818.8
50°	3812.0	1864.2	874.0	844.7	881.5	885.7	824.6	827.1	820.4	804.5	801.2
52.5°	4048.6	1829.9	843.0	834.6	861.4	815.4	797.0	806.2	803.7	783.6	780.3
55°	4308.7	1809.0	828.0	834.6	848.0	754.4	771.1	784.5	781.1	766.9	766.1
57.5°	4624.0	1813.1	817.1	837.2	834.6	723.4	745.2	761.1	760.2	756.0	756.0
60°	4946.8	1814.8	800.4	836.3	818.8	699.2	718.4	741.0	742.7	745.2	745.2
62.5°	5053.9	1742.1	767.7	821.3	783.6	675.7	693.3	724.3	722.6	729.3	730.1
65°	4854.0	1540.5	719.2	787.0	738.5	659.0	674.1	702.5	693.3	710.9	714.2
67.5°	4418.3	1274.6	644.0	725.1	688.3	641.5	661.5	672.4	655.7	690.0	690.8
70°	3818.6	995.2	548.6	637.3	631.4	623.1	651.5	634.8	611.4	653.2	644.8
72.5°	3193.1	760.2	438.2	521.0	555.3	595.5	633.9	586.3	553.6	566.2	551.1
75°	2398.6	562.0	352.1	408.1	462.5	556.2	618.0	527.7	477.5	465.8	462.5
77.5°	1222.7	367.1	263.4	305.3	347.1	502.6	596.3	459.1	395.6	377.2	368.8
80°	436.6	228.3	185.7	210.8	234.2	432.4	521.0	379.7	306.9	303.6	306.9
82.5°	202.4	147.2	124.6	138.0	138.8	288.5	397.3	283.5	233.3	354.6	299.4
85°	87.0	73.6	70.3	68.6	63.6	128.8	223.3	152.2	237.5	106.2	97.8
87.5°	25.9	29.3	25.9	19.2	14.2	14.2	22.6	8.4	5.9	4.2	4.2
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)