

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: P453659

Luminaire Tested: **GALN-SA4D-722-U-T2**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453659
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-10)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4D-722-U-T2
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2200K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22625 lumens
Efficiency: N/A
Efficacy: 92.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G4

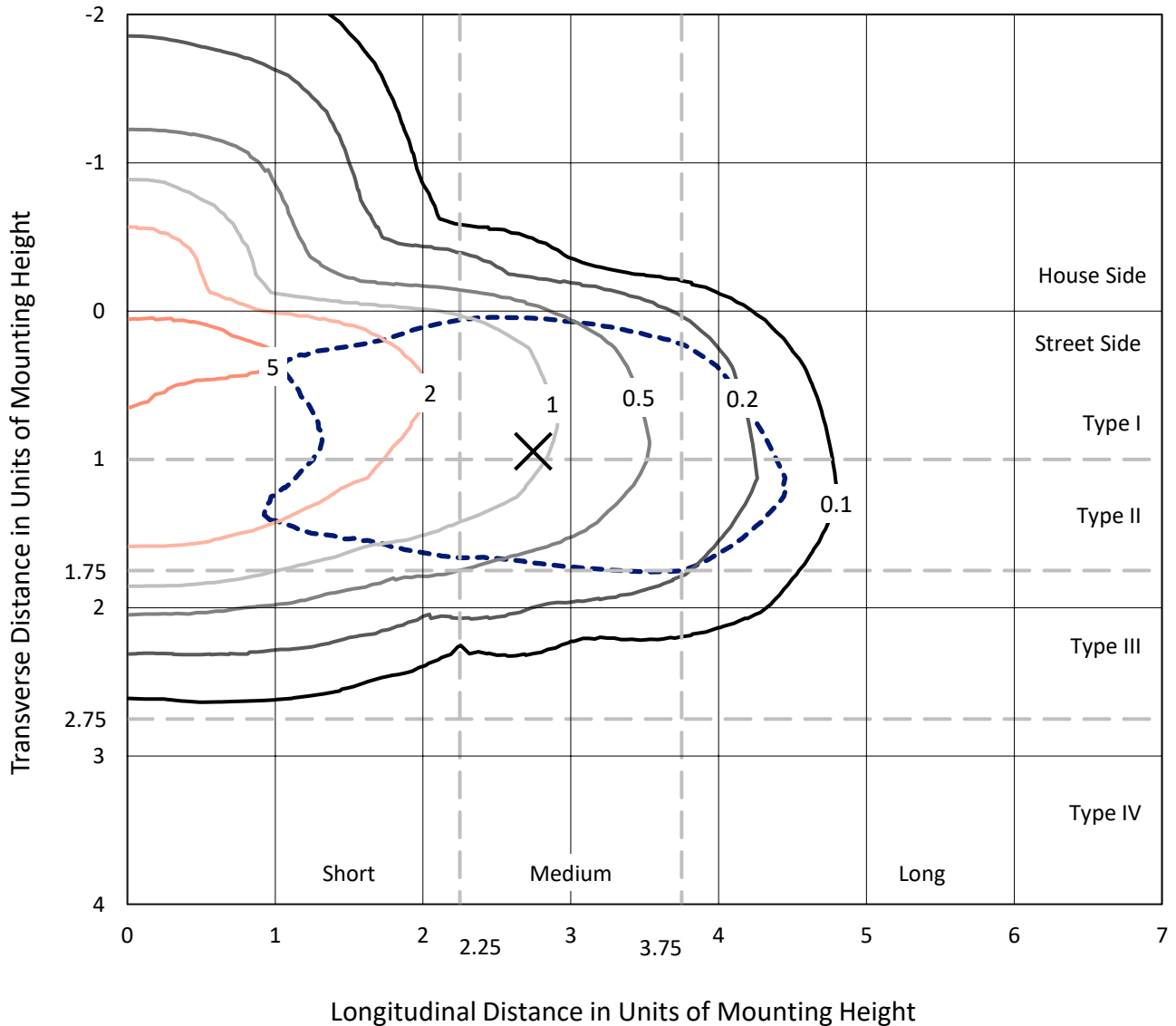
Input Watts (W): 245
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

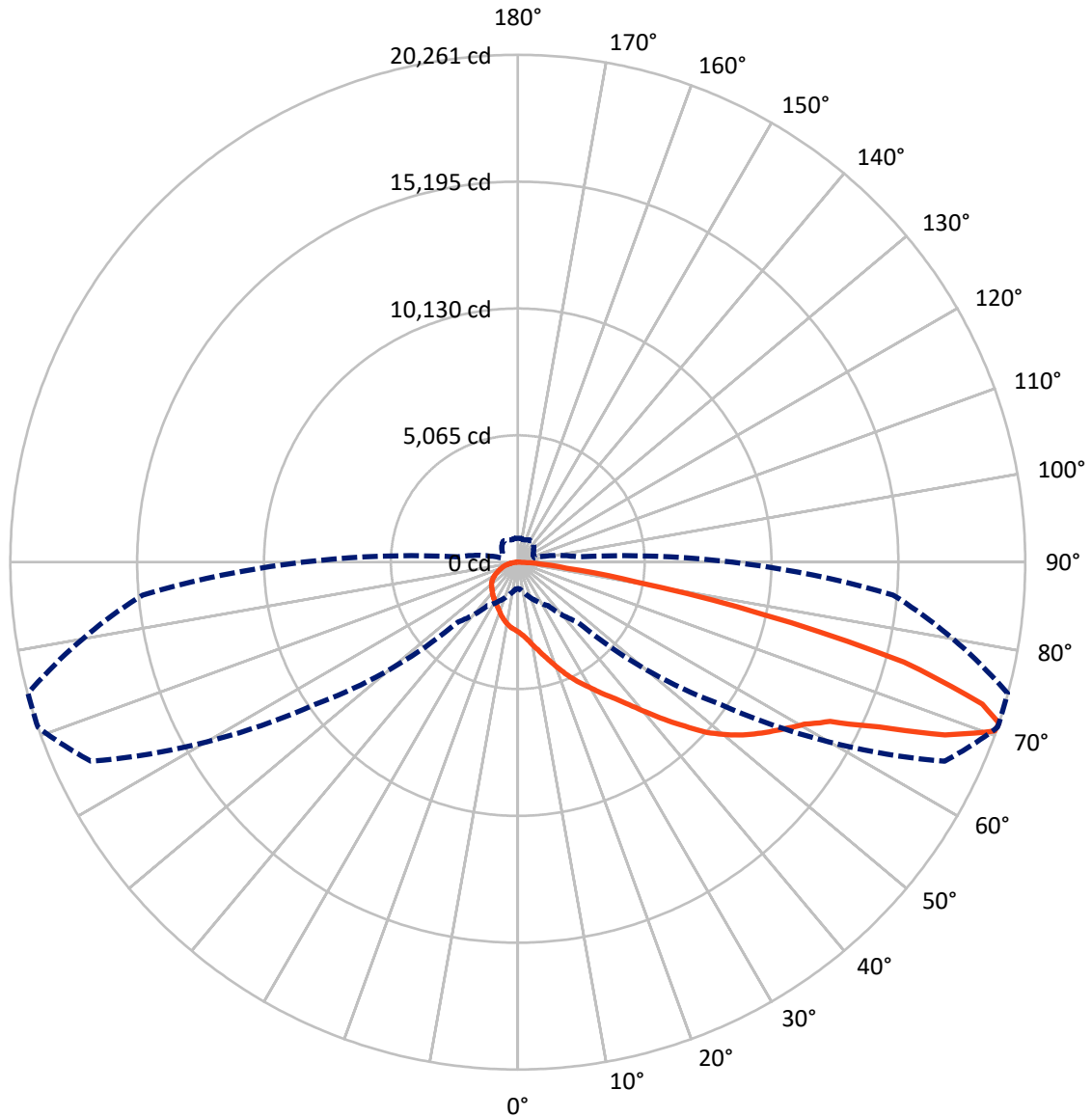
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.3 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 71-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4069.1	0.0	4069.1
	% Fixture	18.0	0.0	18.0
Street Side	Lumens	18555.9	0.0	18555.9
	% Fixture	82.0	0.0	82.0
Total	Lumens	22625.0	0.0	22625.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	278.8	1.2
10°-20°	905.8	4.0
20°-30°	1583.0	7.0
30°-40°	2354.5	10.4
40°-50°	3469.1	15.3
50°-60°	4856.7	21.5
60°-70°	5432.1	24.0
70°-80°	3318.1	14.7
80°-90°	426.8	1.9
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°	22625.0	100.0
0°-180°	22625.0	100.0

Coefficient of Utilization



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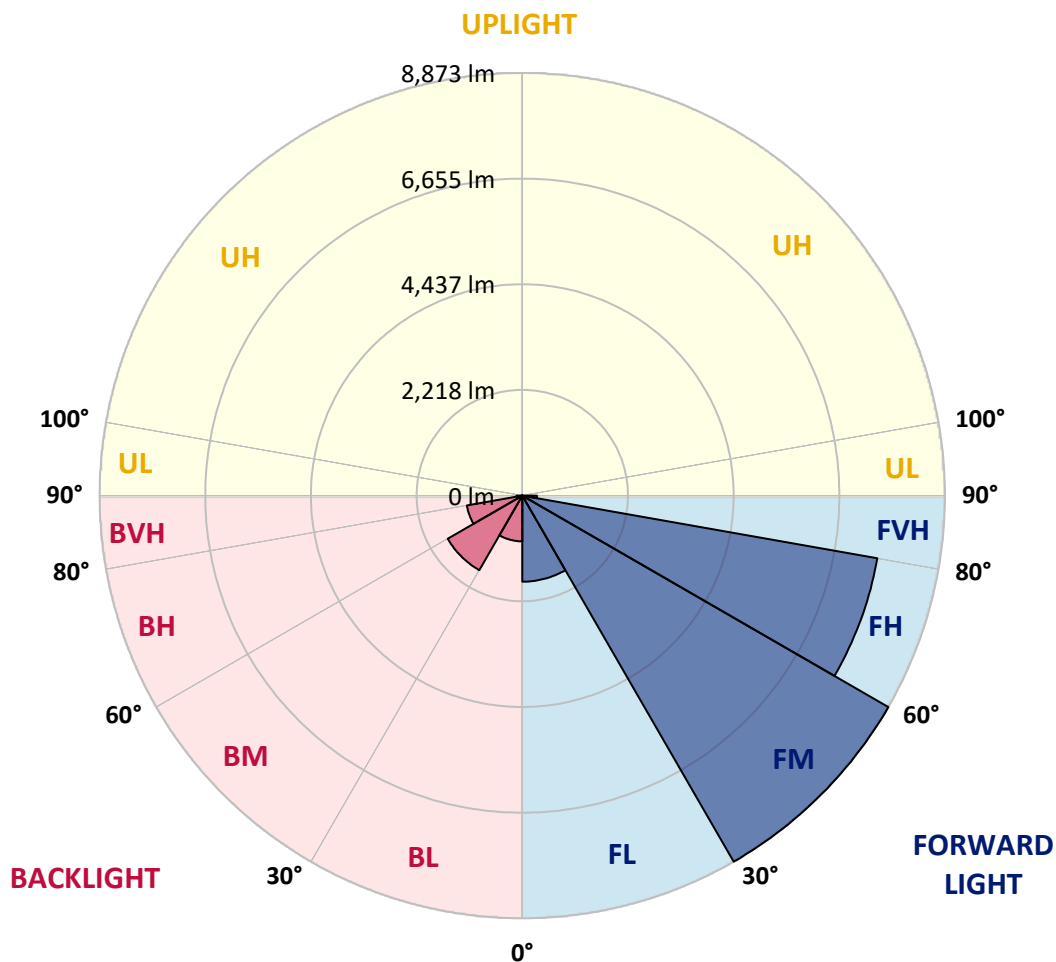
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1807.7	8.0			
FM	(30°-60°)	8873.1	39.2			
FH	(60°-80°)	7568.0	33.4			G4/12000
FVH	(80°-90°)	307.1	1.4			G3/500
BL	(0°-30°)	959.9	4.2	B2/1000		
BM	(30°-60°)	1807.2	8.0	B2/2500		
BH	(60°-80°)	1182.2	5.2	B3/2500		G3/2500
BVH	(80°-90°)	119.7	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-G4

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	71°	75°	85°
0°	2776.8	2776.8	2776.8	2776.8	2776.8	2776.8	2776.8	2776.8	2776.8	2776.8	2776.8
2.5°	3082.7	3067.8	3069.0	3047.9	3020.5	2990.7	2948.4	2911.1	2881.2	2863.8	2812.8
5°	3415.9	3401.0	3382.4	3336.4	3316.5	3243.1	3149.8	3065.3	3000.6	2964.5	2862.6
7.5°	3685.8	3682.1	3677.1	3651.0	3600.0	3498.0	3418.4	3271.7	3175.9	3107.5	2933.5
10°	3852.4	3858.6	3862.4	3867.3	3846.2	3792.7	3683.3	3498.0	3376.1	3289.1	3025.5
12.5°	3937.0	3943.2	3964.3	4010.3	4038.9	4032.7	3943.2	3761.6	3593.8	3479.4	3123.7
15°	3989.2	3999.1	4036.5	4097.4	4193.1	4254.1	4210.5	4042.7	3858.6	3723.1	3240.6
17.5°	4046.4	4057.6	4098.6	4185.7	4311.3	4443.1	4490.3	4346.1	4145.9	3984.2	3371.2
20°	4078.7	4093.7	4152.1	4266.5	4413.2	4604.7	4761.4	4685.6	4466.7	4287.6	3521.6
22.5°	4131.0	4143.4	4193.1	4315.0	4490.3	4730.3	5032.5	5016.3	4823.6	4592.3	3687.0
25°	4272.7	4292.6	4317.5	4390.9	4560.0	4858.4	5257.6	5369.5	5169.3	4910.6	3838.7
27.5°	4540.1	4556.2	4555.0	4564.9	4660.7	4969.1	5452.8	5718.9	5512.5	5232.7	3985.5
30°	4844.7	4851.0	4855.9	4833.5	4854.7	5082.3	5631.9	6064.6	5858.2	5563.5	4113.6
32.5°	5215.3	5227.7	5185.5	5128.3	5110.9	5250.1	5779.9	6410.3	6267.3	5899.2	4240.4
35°	5653.0	5685.4	5599.6	5498.8	5427.9	5491.4	5978.8	6763.5	6686.4	6328.3	4408.3
37.5°	6152.9	6192.7	6113.1	5915.4	5814.7	5832.1	6238.7	7200.0	7216.1	6817.0	4658.2
40°	6562.0	6614.3	6616.8	6337.0	6184.0	6203.9	6568.3	7670.0	7855.3	7421.3	4952.9
42.5°	6831.9	6882.9	6936.3	6772.2	6611.8	6724.9	6952.5	8179.9	8574.0	8155.0	5364.5
45°	7127.8	7173.8	7203.7	7129.1	7039.5	7333.0	7416.3	8722.0	9340.1	8974.5	5814.7
47.5°	7471.0	7522.0	7550.6	7479.8	7446.2	7866.5	7916.2	9228.1	10158.3	9770.3	6312.1
50°	7928.7	7967.2	7952.3	7907.5	7900.1	8275.6	8396.2	9701.9	10833.5	10627.1	6828.1
52.5°	8498.2	8544.2	8560.4	8496.9	8468.3	8567.8	8783.0	10133.4	11447.8	11363.3	7379.0
55°	8842.6	8916.0	9162.2	9261.7	9330.1	8945.9	9199.5	10609.7	11998.7	12139.2	7970.9
57.5°	8401.2	8495.7	9046.6	9544.0	10186.9	9890.9	9790.2	11107.1	12549.6	12891.5	8679.7
60°	7324.3	7345.5	8055.5	8972.0	10265.2	11105.8	11022.5	11898.0	13146.5	13650.1	9613.6
62.5°	5081.0	5125.8	5965.1	7427.5	9297.8	11543.6	13119.1	13263.3	14002.0	14785.4	10982.7
65°	2620.1	2561.6	3326.4	4668.2	7009.7	10504.0	14817.7	15774.0	15857.3	16561.2	12910.2
67.5°	1612.8	1639.0	1997.1	2725.8	4144.6	7633.9	14639.9	18841.8	18402.8	18741.0	14699.6
70°	1211.2	1243.5	1489.7	1865.3	2526.8	4364.7	11773.6	19585.4	20198.4	20111.4	15244.3
71°	1053.3	1086.8	1343.0	1697.4	2122.7	3368.7	9919.5	18806.9	20260.6	20245.7	15039.1
72.5°	897.8	919.0	1119.2	1437.5	1789.4	2361.4	7452.4	16867.1	19396.4	19892.5	14306.7
75°	705.1	721.2	810.8	1096.8	1408.9	1449.9	3999.1	12645.3	15930.7	16875.8	11910.4
77.5°	574.5	585.7	631.7	814.5	1086.8	1027.1	2097.8	8230.8	9980.5	10931.8	7015.9
80°	456.4	468.8	496.2	552.1	814.5	732.4	1001.0	4170.8	4821.1	4811.2	2800.4
82.5°	354.4	358.1	390.5	405.4	557.1	519.8	542.2	1765.8	1956.1	2020.7	1011.0
85°	223.8	235.0	345.7	310.9	333.3	304.7	267.4	701.3	864.2	851.8	404.1
87.5°	68.4	72.1	116.9	131.8	148.0	133.1	98.2	206.4	252.4	273.6	100.7
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°	2776.8	2776.8	2776.8	2776.8	2776.8	2776.8	2776.8	2776.8	2776.8	2776.8	2776.8
2.5°	2792.9	2779.3	2730.8	2691.0	2653.7	2612.6	2577.8	2567.9	2559.2	2555.4	2554.2
5°	2819.1	2778.0	2682.3	2603.9	2541.7	2484.5	2448.5	2432.3	2416.2	2416.2	2421.1
7.5°	2856.4	2781.7	2633.8	2516.9	2438.5	2385.1	2359.0	2356.5	2360.2	2363.9	2365.2
10°	2897.4	2779.3	2562.9	2417.4	2347.8	2322.9	2324.1	2345.3	2365.2	2380.1	2382.6
12.5°	2937.2	2764.3	2479.6	2324.1	2279.4	2284.3	2319.2	2366.4	2405.0	2426.1	2427.3
15°	2982.0	2740.7	2378.8	2235.8	2220.9	2259.5	2324.1	2396.3	2454.7	2489.5	2493.3
17.5°	3019.3	2700.9	2273.1	2150.0	2168.7	2239.6	2329.1	2422.4	2493.3	2536.8	2544.2
20°	3061.5	2649.9	2163.7	2068.0	2121.4	2217.2	2319.2	2419.9	2493.3	2535.5	2545.5
22.5°	3095.1	2577.8	2059.3	2000.8	2079.2	2189.8	2285.6	2366.4	2426.1	2448.5	2463.4
25°	3108.8	2487.0	1961.0	1946.1	2045.6	2145.1	2209.7	2255.7	2274.4	2271.9	2278.1
27.5°	3101.3	2382.6	1876.5	1902.6	2003.3	2075.4	2107.8	2104.0	2070.5	2039.4	2054.3
30°	3070.2	2258.2	1805.6	1857.8	1948.6	1988.4	1983.4	1934.9	1871.5	1813.0	1816.8
32.5°	3014.3	2123.9	1739.7	1806.8	1871.5	1888.9	1855.3	1791.9	1701.1	1625.3	1614.1
35°	2967.0	1995.8	1681.2	1748.4	1794.4	1785.7	1753.4	1671.3	1589.2	1522.1	1510.9
37.5°	2959.6	1886.4	1625.3	1682.5	1708.6	1696.2	1656.4	1586.7	1556.9	1505.9	1499.7
40°	2999.4	1809.3	1568.1	1612.8	1625.3	1615.3	1571.8	1532.0	1559.4	1546.9	1546.9
42.5°	3107.5	1768.3	1517.1	1543.2	1553.2	1560.6	1529.5	1496.0	1529.5	1472.3	1453.7
45°	3279.2	1769.5	1471.1	1474.8	1504.7	1530.8	1509.6	1459.9	1442.5	1328.1	1305.7
47.5°	3531.6	1811.8	1433.8	1410.1	1463.6	1507.1	1477.3	1405.2	1328.1	1252.2	1238.5
50°	3826.3	1887.7	1400.2	1343.0	1408.9	1477.3	1454.9	1370.4	1290.8	1244.8	1236.1
52.5°	4153.3	1983.4	1359.2	1268.4	1341.8	1463.6	1459.9	1365.4	1256.0	1224.9	1217.4
55°	4557.5	2077.9	1308.2	1181.3	1282.1	1452.4	1446.2	1324.3	1248.5	1226.1	1223.6
57.5°	5027.5	2214.7	1234.8	1093.1	1213.7	1406.4	1392.7	1299.5	1223.6	1207.5	1206.2
60°	5784.8	2427.3	1130.4	1012.2	1144.0	1325.6	1343.0	1257.2	1183.8	1180.1	1178.9
62.5°	6780.9	2725.8	1022.2	928.9	1063.2	1221.1	1270.9	1200.0	1141.5	1160.2	1162.7
65°	8156.2	2977.0	910.3	858.0	973.7	1120.4	1202.5	1146.5	1094.3	1130.4	1130.4
67.5°	9052.8	2982.0	808.3	784.7	882.9	1035.8	1130.4	1083.1	1033.4	1094.3	1096.8
70°	8866.3	2612.6	723.7	707.6	794.6	945.1	1050.8	1013.5	956.3	1011.0	991.1
71°	8565.3	2407.4	690.2	677.7	759.8	901.5	1013.5	982.4	925.2	961.2	950.0
72.5°	8085.3	2090.4	635.4	637.9	707.6	846.8	961.2	928.9	871.7	891.6	887.9
75°	6834.4	1825.5	543.4	554.6	608.1	753.6	856.8	831.9	773.5	773.5	769.7
77.5°	4272.7	1275.8	451.4	457.6	516.1	645.4	736.2	715.0	659.1	640.4	635.4
80°	1594.2	659.1	353.2	360.6	396.7	508.6	609.3	589.4	532.2	511.1	491.2
82.5°	603.1	330.8	259.9	253.7	292.2	388.0	477.5	453.9	409.1	358.1	343.2
85°	227.6	164.1	159.2	154.2	171.6	230.1	296.0	291.0	243.7	207.7	203.9
87.5°	59.7	53.5	62.2	46.0	48.5	43.5	44.8	18.7	8.7	3.7	2.5
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)