

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: P454747

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

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P454747
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-SA5D-827-U-AFL
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(5) 80 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: 28758 lumens
Efficiency: N/A
Efficacy: 93.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

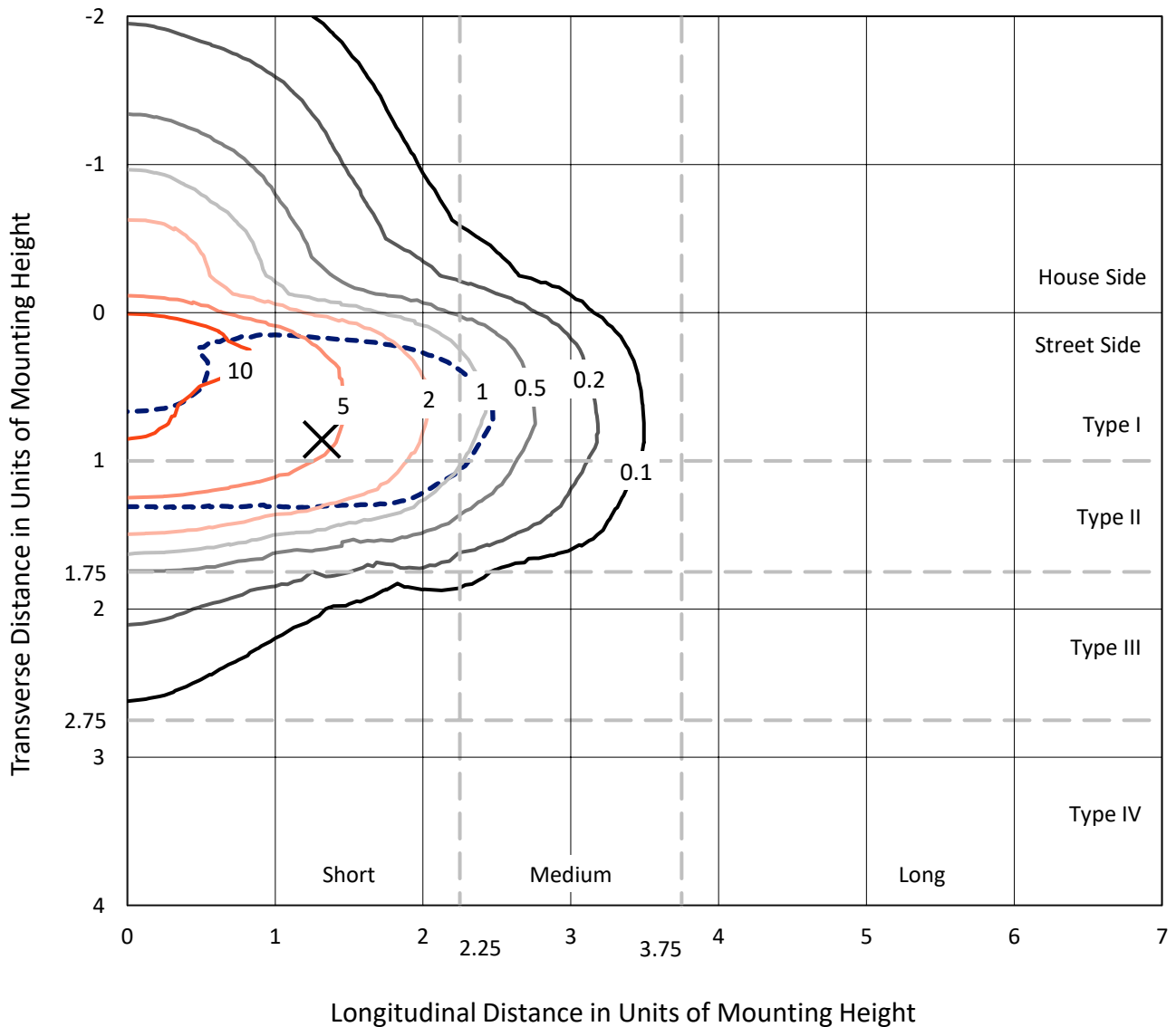
Input Watts (W): 309
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

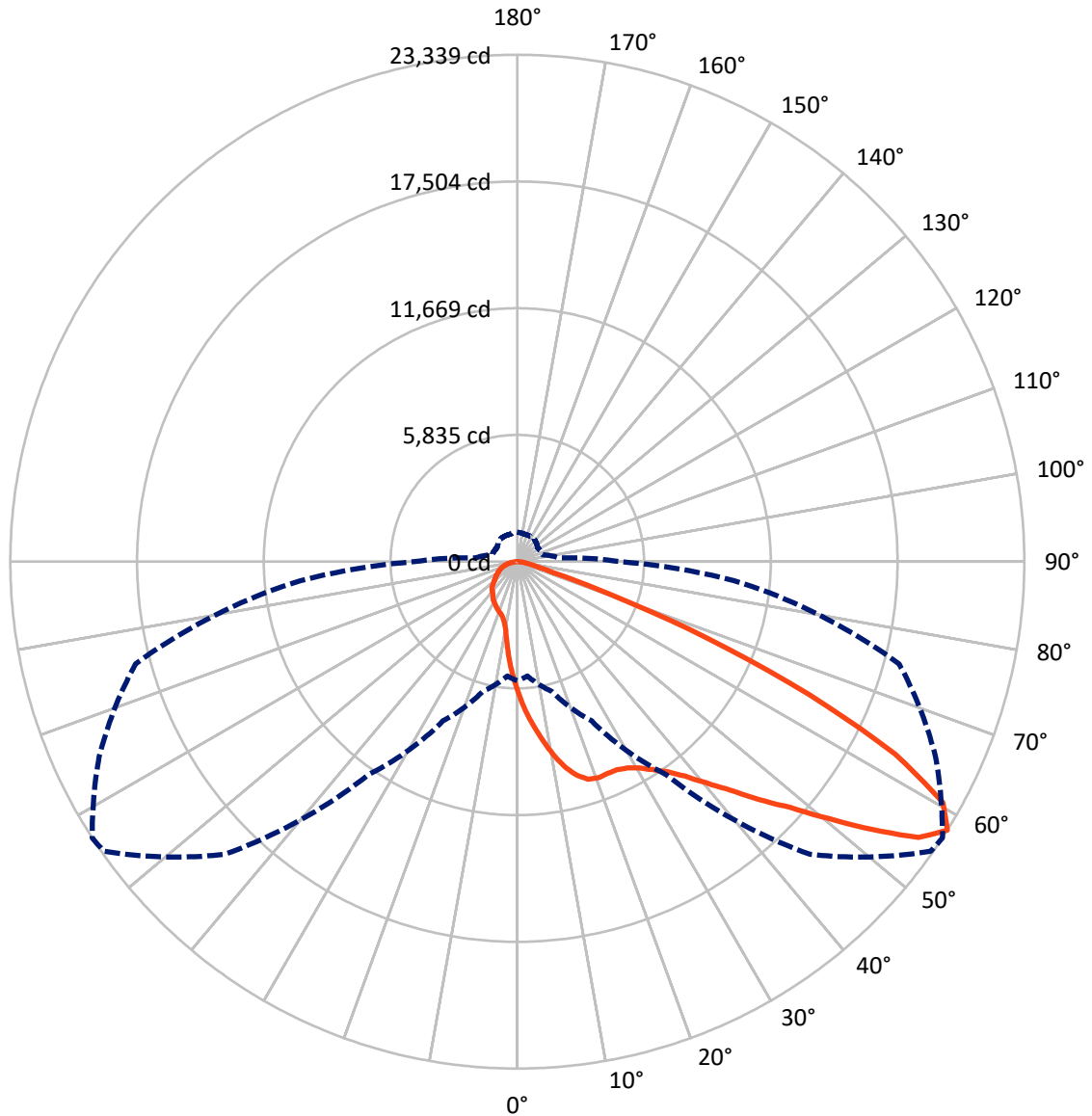
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 14.7 fc
 Type II - Short - N/A

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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	4373.3	0.0	4373.3
	% Fixture	15.2	0.0	15.2
Street Side	Lumens	24384.7	0.0	24384.7
	% Fixture	84.8	0.0	84.8
Total	Lumens	28758.0	0.0	28758.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	580.7	2.0
10°-20°	1711.3	6.0
20°-30°	2841.6	9.9
30°-40°	4280.2	14.9
40°-50°	6426.4	22.3
50°-60°	7203.2	25.0
60°-70°	4215.7	14.7
70°-80°	1247.0	4.3
80°-90°	252.0	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°	28758.0	100.0
0°-180°	28758.0	100.0

Coefficient of Utilization



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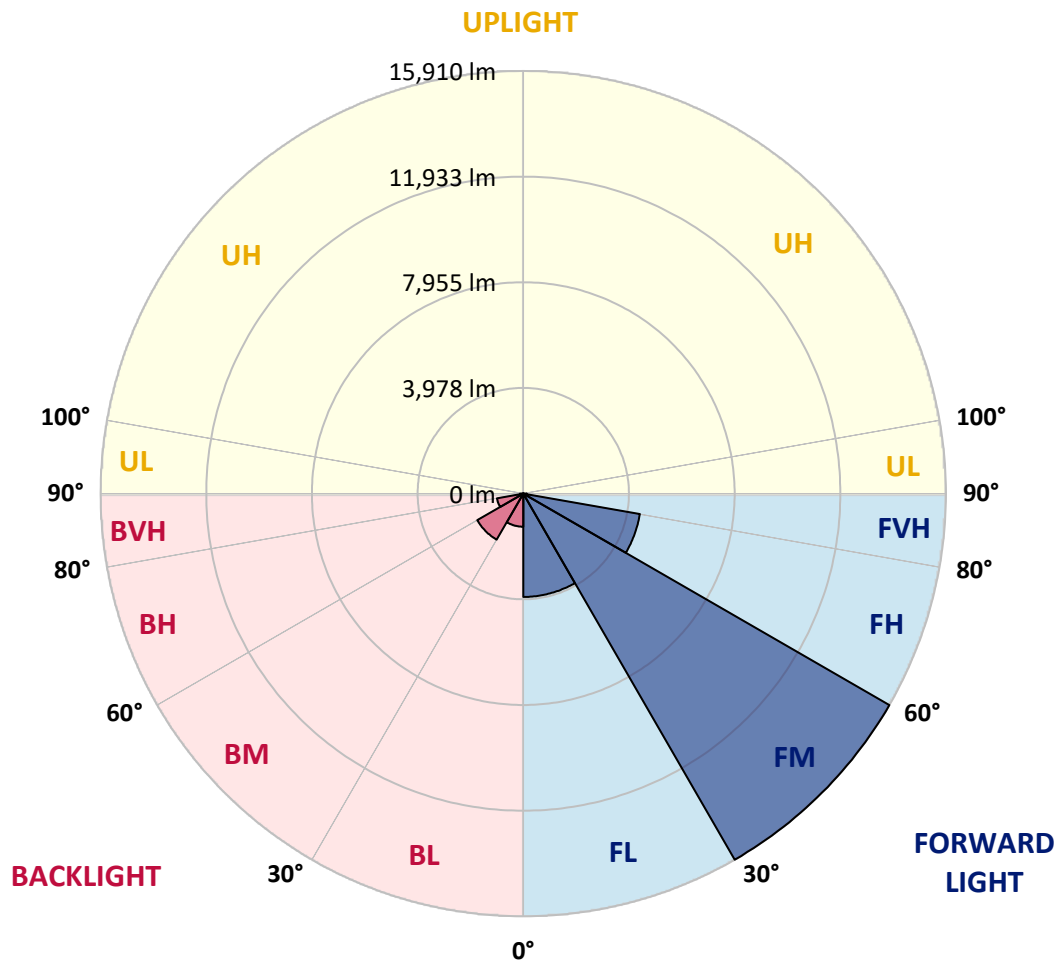
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3887.4	13.5			
FM	(30°-60°)	15910.2	55.3			
FH	(60°-80°)	4456.3	15.5			G2/5000
FVH	(80°-90°)	130.8	0.5			G2/225
BL	(0°-30°)	1246.1	4.3	B3/2500		
BM	(30°-60°)	1999.6	7.0	B2/2500		
BH	(60°-80°)	1006.3	3.5	B3/2500		G3/2500
BVH	(80°-90°)	121.3	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-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	6041.7	6041.7	6041.7	6041.7	6041.7	6041.7	6041.7	6041.7	6041.7	6041.7	6041.7
2.5°	7507.3	7425.4	7360.9	7304.2	7230.2	7030.3	6830.4	6827.2	6668.3	6422.7	6170.8
5°	8730.4	8620.2	8634.4	8458.1	8281.8	7992.1	7568.7	7546.6	7208.2	6748.5	6281.0
7.5°	9527.0	9528.5	9484.5	9383.7	9193.2	8864.2	8384.1	8275.5	7804.8	7107.5	6406.9
10°	9486.0	9528.5	9602.5	9689.1	9747.4	9585.2	9147.6	9015.4	8403.0	7541.9	6547.0
12.5°	8941.4	9007.5	9113.0	9330.2	9681.2	9948.9	9799.3	9692.3	9095.6	7974.8	6701.3
15°	8601.4	8640.7	8699.0	8845.4	9223.2	9863.9	10251.1	10194.4	9748.9	8464.4	6874.5
17.5°	8497.5	8536.8	8555.7	8645.4	8914.6	9571.1	10429.0	10529.7	10328.2	8914.6	7049.2
20°	8601.4	8620.2	8620.2	8673.8	8884.7	9399.5	10421.1	10624.2	10803.6	9454.6	7212.9
22.5°	8873.7	8881.6	8870.5	8889.4	9046.8	9446.7	10347.1	10599.0	11187.7	9912.7	7340.4
25°	9316.0	9328.6	9256.2	9212.1	9327.1	9654.5	10388.1	10619.5	11488.4	10350.3	7425.4
27.5°	9818.2	9833.9	9745.8	9643.5	9697.0	9911.1	10548.6	10756.4	11713.5	10781.6	7479.0
30°	10433.7	10440.0	10292.0	10169.2	10134.6	10293.6	10822.5	11016.2	11993.7	11290.1	7559.2
32.5°	11063.4	11110.6	10920.1	10747.0	10688.7	10737.5	11227.1	11414.4	12327.5	11836.3	7688.3
35°	11919.7	11927.6	11699.4	11488.4	11296.4	11359.3	11745.0	11880.4	12788.7	12467.6	7870.9
37.5°	12988.6	13061.0	12746.2	12352.6	12116.5	12025.2	12371.5	12519.5	13435.7	13242.1	8146.4
40°	14175.5	14202.3	13933.1	13687.5	13256.2	12991.8	13231.0	13391.6	14233.8	14166.1	8466.0
42.5°	14921.7	14980.0	15000.4	14975.2	14651.0	14207.0	14298.3	14373.9	15178.3	15033.5	8793.4
45°	15173.6	15260.2	15553.0	16173.2	16207.8	15770.2	15557.7	15630.1	16207.8	15908.7	9106.7
47.5°	14756.4	14904.4	15444.3	16716.3	17668.7	17701.7	17061.0	16902.0	17146.0	16634.4	9333.4
50°	13678.1	13709.6	14536.0	16377.8	18353.4	19548.2	18885.5	18589.6	18037.0	17171.2	9489.2
52.5°	12009.5	12045.7	12738.3	14805.2	17931.6	20839.1	21020.1	20491.2	18942.2	17588.4	9591.5
55°	8914.6	9124.0	9885.9	11883.5	15932.3	20717.9	22717.1	22416.4	20036.2	17919.0	9752.1
57.5°	5481.3	5289.3	6192.8	8085.0	11982.7	19052.4	23241.3	23338.9	21240.5	18196.0	10021.3
60°	2521.8	2559.6	2932.7	4170.0	7304.2	14904.4	21890.6	22507.7	21906.4	18186.6	10089.0
62.5°	1737.9	1703.3	1608.8	1830.8	3331.0	9426.2	18490.4	19535.7	20571.5	17621.4	9819.8
65°	1553.7	1519.1	1336.5	1275.1	1530.1	4108.6	13442.0	14761.1	17320.8	16195.2	9149.2
67.5°	1451.4	1404.2	1215.3	1095.6	1092.5	1635.6	7926.0	9514.4	12846.9	13692.3	7927.6
70°	1344.4	1306.6	1119.2	987.0	930.3	1027.9	3483.7	4560.4	8341.6	9867.0	6175.5
72.5°	1237.3	1193.2	1024.8	883.1	809.1	769.8	1334.9	1736.3	4713.1	5915.8	3785.9
75°	1081.5	1059.4	916.2	799.7	719.4	621.8	846.9	966.6	2254.2	2717.0	1900.0
77.5°	946.1	922.5	813.9	698.9	640.7	505.3	601.3	656.4	950.8	1101.9	857.9
80°	692.6	716.3	686.3	617.1	571.4	396.7	404.6	450.2	565.1	625.0	524.2
82.5°	439.2	483.3	528.9	475.4	432.9	313.3	280.2	297.5	385.7	409.3	233.0
85°	184.2	187.3	307.0	289.7	247.1	185.8	168.4	177.9	206.2	215.7	108.6
87.5°	70.8	69.3	108.6	100.7	77.1	53.5	53.5	59.8	81.9	75.6	34.6
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°	6041.7	6041.7	6041.7	6041.7	6041.7	6041.7	6041.7	6041.7	6041.7	6041.7	6041.7
2.5°	6062.2	5950.4	5728.5	5453.0	5251.5	5024.8	4824.9	4681.6	4628.1	4602.9	4555.7
5°	6057.5	5837.1	5377.4	4895.7	4508.5	4111.8	3776.5	3559.2	3540.3	3395.5	3381.4
7.5°	6059.0	5722.2	4990.2	4281.8	3691.5	3285.3	3008.3	2935.9	2849.3	2827.2	2838.3
10°	6063.8	5575.8	4574.6	3674.2	3102.7	2836.7	2732.8	2704.5	2707.6	2717.0	2718.6
12.5°	6070.1	5434.1	4143.3	3212.9	2772.1	2661.9	2650.9	2676.1	2702.9	2723.3	2728.1
15°	6077.9	5271.9	3723.0	2841.4	2606.9	2597.4	2633.6	2676.1	2713.9	2743.8	2748.5
17.5°	6068.5	5083.0	3370.3	2613.1	2515.5	2561.2	2621.0	2674.5	2709.2	2737.5	2740.7
20°	6046.4	4872.1	3030.3	2452.6	2458.9	2532.9	2597.4	2647.8	2685.6	2699.7	2710.7
22.5°	5961.4	4620.2	2734.4	2328.2	2391.2	2493.5	2570.6	2600.6	2558.1	2528.1	2536.0
25°	5816.6	4292.8	2458.9	2227.5	2329.8	2438.4	2517.1	2444.7	2410.1	2397.5	2403.8
27.5°	5635.6	3933.9	2251.1	2122.0	2251.1	2377.0	2355.0	2342.4	2326.6	2306.2	2310.9
30°	5440.4	3582.8	2074.8	2040.1	2166.1	2238.5	2247.9	2268.4	2251.1	2219.6	2232.2
32.5°	5259.4	3252.3	1941.0	1970.9	2106.3	2095.2	2166.1	2189.7	2109.4	2003.9	2008.7
35°	5105.1	2945.3	1840.2	1903.2	2003.9	2008.7	2079.5	1997.6	1911.1	1860.7	1863.8
37.5°	4988.6	2706.0	1774.1	1844.9	1873.3	1933.1	1895.3	1852.8	1841.8	1807.2	1808.7
40°	4919.3	2496.7	1731.6	1799.3	1794.6	1835.5	1714.3	1756.8	1772.5	1761.5	1763.1
42.5°	4850.1	2348.7	1687.5	1736.3	1734.8	1654.5	1627.7	1663.9	1704.8	1709.6	1706.4
45°	4795.0	2233.8	1641.9	1640.3	1671.8	1545.9	1538.0	1560.0	1618.3	1646.6	1645.0
47.5°	4733.6	2137.7	1572.6	1528.5	1538.0	1478.2	1465.6	1475.0	1545.9	1591.5	1604.1
50°	4656.4	2041.7	1486.0	1426.2	1386.9	1415.2	1418.3	1419.9	1490.8	1542.7	1553.7
52.5°	4595.0	1969.3	1386.9	1342.8	1295.6	1358.5	1382.1	1385.3	1427.8	1470.3	1478.2
55°	4631.3	1928.4	1289.3	1257.8	1215.3	1300.3	1345.9	1352.2	1361.7	1393.2	1397.9
57.5°	4739.9	1937.8	1210.5	1169.6	1138.1	1231.0	1308.1	1312.9	1306.6	1344.4	1350.7
60°	4772.9	1933.1	1152.3	1072.0	1053.1	1157.0	1253.1	1262.5	1260.9	1316.0	1327.0
62.5°	4634.4	1873.3	1094.1	990.2	977.6	1081.5	1175.9	1213.7	1221.6	1300.3	1314.4
65°	4308.5	1750.5	1016.9	903.6	903.6	1001.2	1101.9	1153.9	1175.9	1281.4	1297.1
67.5°	3878.8	1605.7	938.2	829.6	826.4	924.0	1023.2	1076.7	1111.4	1254.6	1264.1
70°	3219.2	1410.5	840.6	749.3	749.3	837.5	927.2	991.7	1042.1	1204.3	1204.3
72.5°	2205.4	1172.8	722.6	658.0	659.6	741.4	832.7	905.2	965.0	1103.5	1106.7
75°	1394.7	916.2	593.5	560.4	566.7	643.8	738.3	813.9	933.5	1090.9	1095.6
77.5°	741.4	643.8	472.3	464.4	472.3	543.1	648.6	752.5	936.6	946.1	930.3
80°	480.1	456.5	373.1	357.3	360.5	437.6	577.7	714.7	752.5	761.9	727.3
82.5°	261.3	289.7	264.5	248.7	248.7	341.6	492.7	568.3	539.9	448.6	428.2
85°	111.8	135.4	137.0	119.6	114.9	210.9	330.6	310.1	288.1	275.5	272.3
87.5°	31.5	44.1	44.1	33.1	25.2	58.2	66.1	18.9	0.0	1.6	3.1
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)