

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: P453810

Luminaire Tested: **GALN-SA4D-760-U-T3R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453810
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-8)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4D-760-U-T3R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 5700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31317 lumens
Efficiency: N/A
Efficacy: 127.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - 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

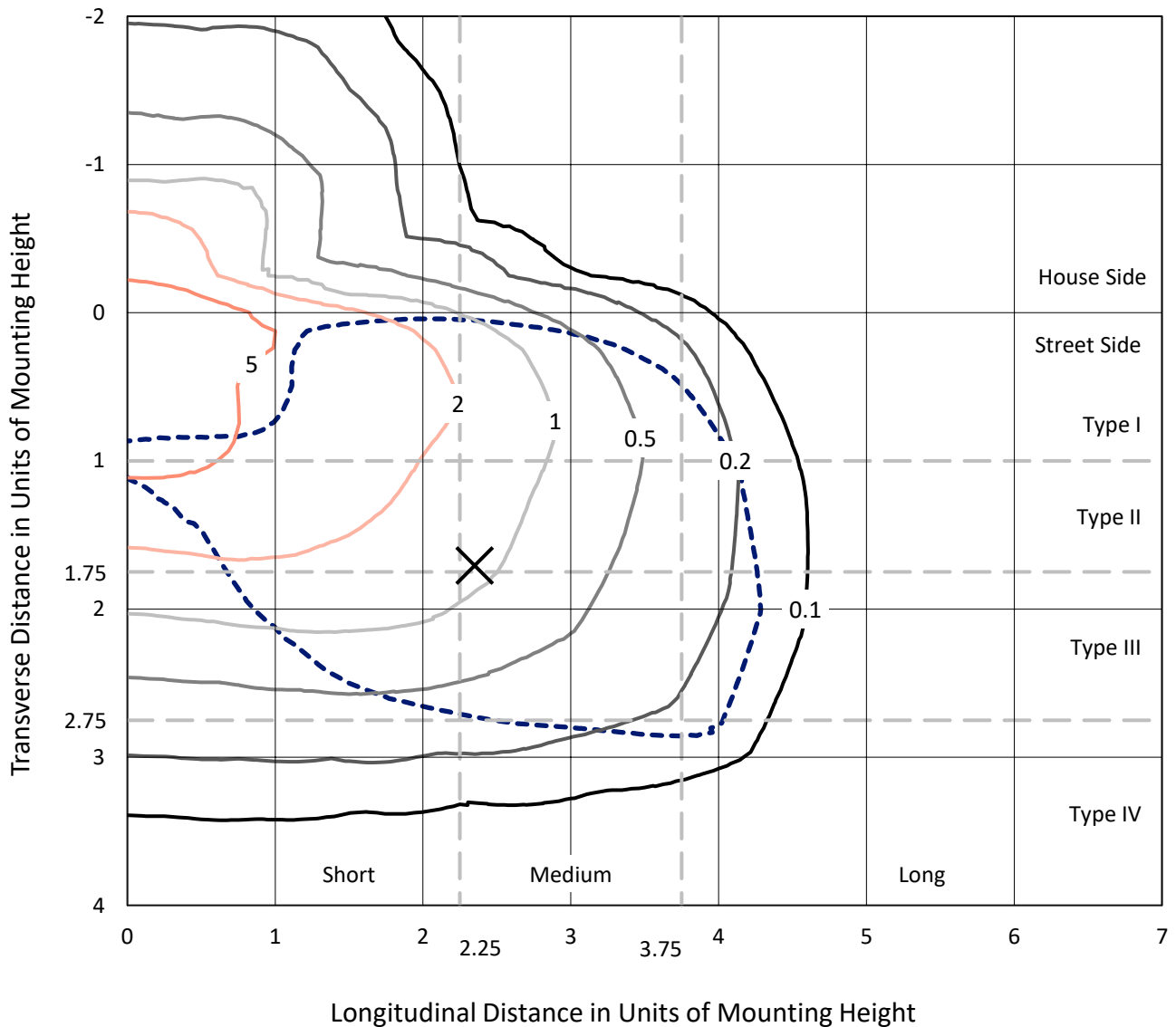




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Iso-Footcandle Lines of Horizontal Illumination

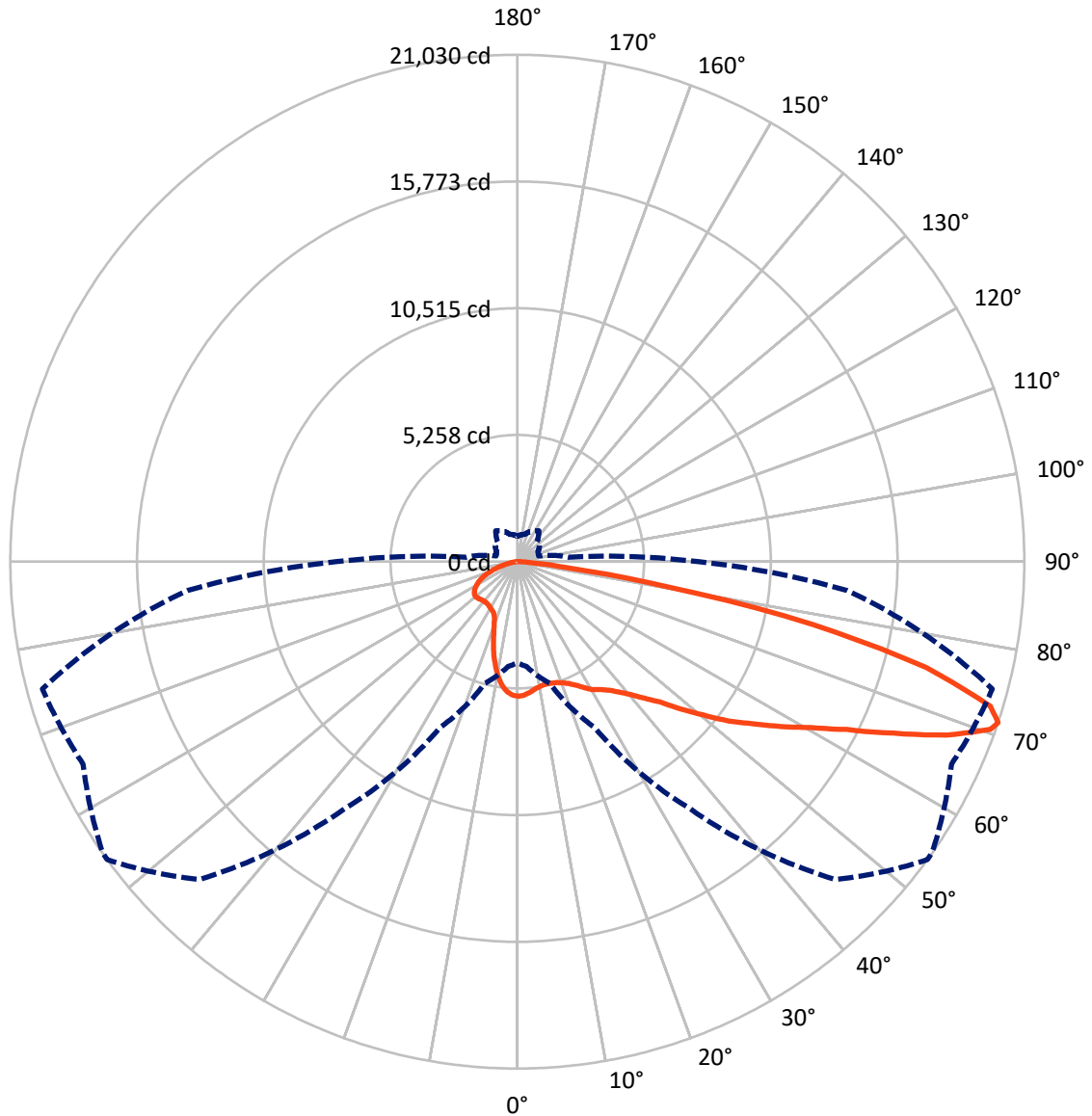
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5654.1	0.0	5654.1
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	25662.9	0.0	25662.9
	% Fixture	81.9	0.0	81.9
Total	Lumens	31317.0	0.0	31317.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	497.9	1.6
10°-20°	1314.8	4.2
20°-30°	2189.1	7.0
30°-40°	3237.0	10.3
40°-50°	4559.5	14.6
50°-60°	6105.3	19.5
60°-70°	7695.3	24.6
70°-80°	5255.9	16.8
80°-90°	462.2	1.5
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°	31317.0	100.0
0°-180°	31317.0	100.0

Coefficient of Utilization



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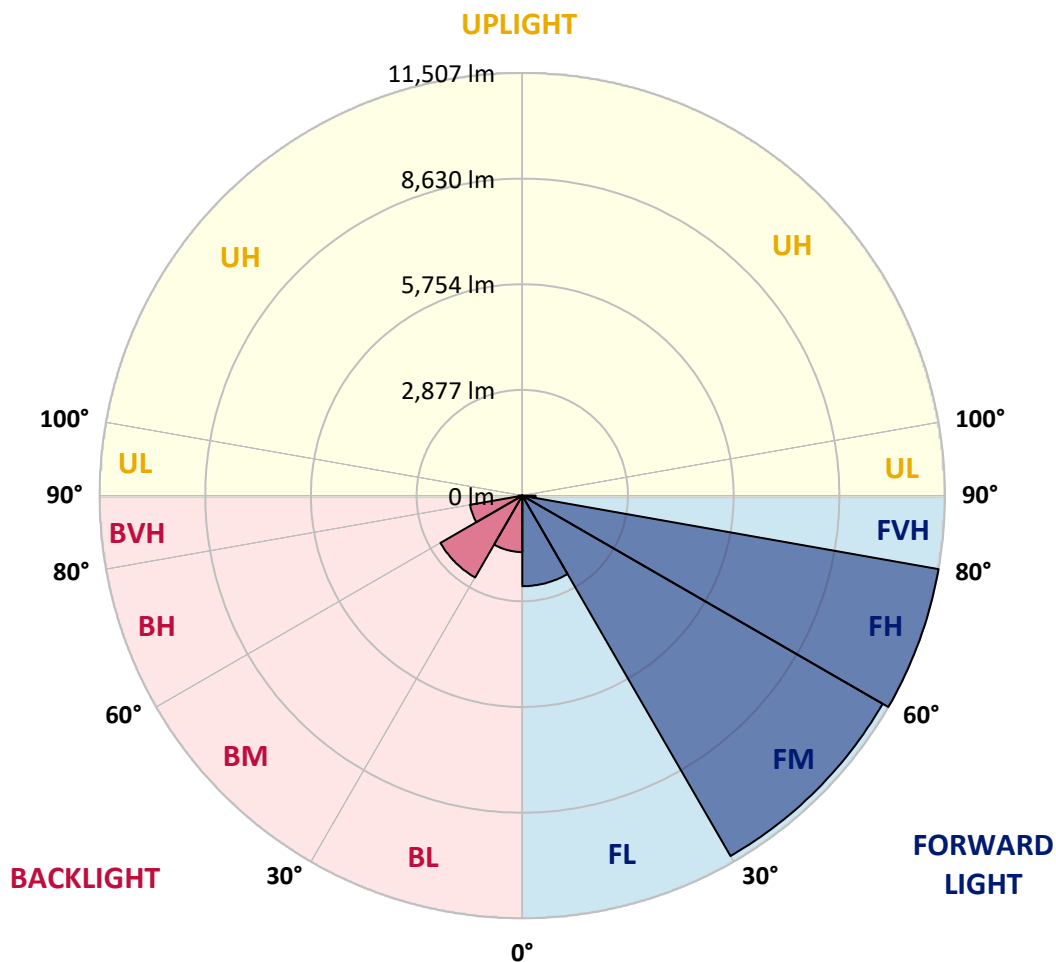
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2465.2	7.9			
FM	(30°-60°)	11329.4	36.2			
FH	(60°-80°)	11507.1	36.7			G4/12000
FVH	(80°-90°)	361.3	1.2			G3/500
BL	(0°-30°)	1536.7	4.9	B3/2500		
BM	(30°-60°)	2572.4	8.2	B3/5000		
BH	(60°-80°)	1444.0	4.6	B3/2500		G3/2500
BVH	(80°-90°)	100.9	0.3			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 IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	5587.4	5587.4	5587.4	5587.4	5587.4	5587.4	5587.4	5587.4	5587.4	5587.4	5587.4
2.5°	5398.0	5423.3	5430.1	5447.0	5482.5	5511.3	5540.1	5536.7	5577.3	5594.2	5609.4
5°	5157.7	5164.5	5189.9	5223.7	5286.3	5365.8	5443.6	5445.3	5545.1	5624.6	5663.5
7.5°	4981.8	5003.8	5020.7	5056.2	5122.2	5208.5	5332.0	5342.1	5519.8	5677.1	5760.0
10°	4866.8	4892.2	4910.8	4954.8	5020.7	5117.1	5250.8	5269.4	5501.1	5760.0	5905.4
12.5°	4761.9	4787.3	4804.2	4861.7	4948.0	5066.4	5217.0	5238.9	5507.9	5856.4	6064.5
15°	4826.2	4846.5	4839.7	4856.6	4914.2	5049.5	5230.5	5252.5	5533.3	5949.4	6221.8
17.5°	5112.1	5129.0	5073.2	5008.9	4981.8	5081.6	5272.8	5296.5	5584.0	6045.8	6382.5
20°	5533.3	5579.0	5457.2	5313.4	5183.1	5196.7	5360.7	5386.1	5655.1	6142.3	6546.6
22.5°	6081.4	6115.2	5966.3	5729.5	5489.3	5365.8	5492.7	5507.9	5761.7	6267.4	6725.9
25°	6725.9	6746.2	6539.8	6235.3	5888.5	5655.1	5673.7	5700.8	5937.6	6409.5	6884.9
27.5°	7351.8	7416.1	7177.5	6805.4	6348.6	5959.6	5922.4	5939.3	6128.7	6489.0	6994.8
30°	8094.4	8089.3	7837.3	7405.9	6820.6	6291.1	6157.5	6154.1	6231.9	6528.0	7074.3
32.5°	8686.5	8755.8	8508.8	8038.6	7360.2	6634.5	6319.9	6313.1	6311.4	6595.6	7192.8
35°	9359.7	9369.9	9143.2	8669.5	7943.8	7065.9	6546.6	6512.7	6473.8	6741.1	7353.5
37.5°	9961.9	10009.3	9801.2	9270.1	8517.3	7514.2	6857.8	6835.8	6717.4	6993.2	7610.6
40°	10432.2	10467.7	10342.6	9836.8	9082.3	7998.0	7253.7	7213.1	7069.3	7405.9	7954.0
42.5°	10586.1	10658.9	10707.9	10459.3	9731.9	8571.4	7740.8	7690.1	7580.1	8031.8	8349.8
45°	10598.0	10713.0	10971.8	10983.7	10384.8	9258.2	8309.2	8273.7	8265.2	8833.6	8906.4
47.5°	10508.3	10625.1	11059.8	11294.9	10966.8	9951.8	9129.7	9073.8	9078.9	9824.9	9530.6
50°	10291.8	10430.5	10958.3	11494.5	11421.8	10672.4	9995.8	9977.2	10082.0	10956.6	10178.5
52.5°	9884.1	10051.6	10853.4	11619.7	11760.1	11293.2	10980.3	10927.9	11193.4	12184.7	10887.3
55°	8755.8	9007.9	10469.4	11689.1	12081.5	11887.0	11866.7	11961.4	12313.3	13524.5	11667.1
57.5°	8167.1	8356.6	9635.5	11700.9	12487.5	12577.2	12902.0	12925.7	13541.4	14947.1	12548.4
60°	7845.7	8013.2	9178.7	11623.1	13054.2	13431.5	13960.9	14045.5	14740.8	16488.2	13461.9
62.5°	7564.9	7708.7	8904.7	11354.1	13693.7	14698.5	15332.8	15373.4	16102.5	18190.0	14363.5
65°	6903.5	7067.6	8353.2	11085.2	14245.1	16281.8	17153.0	17105.6	17552.2	19658.3	14928.5
67.5°	6012.0	6220.1	7323.0	10156.5	14517.5	18012.4	19203.3	19144.0	18983.3	20620.8	15090.9
70°	4873.6	4985.2	6005.2	8551.1	13429.8	18920.8	20822.1	20759.5	19869.8	20747.7	14322.9
71°	4193.5	4367.8	5228.8	7595.4	12524.7	18643.3	21030.2	21013.3	19871.4	20397.5	13744.4
72.5°	3273.3	3379.9	4141.1	5885.1	10645.4	17066.7	20516.0	20580.2	19440.1	19424.9	12551.8
75°	2070.5	2117.9	2598.3	3464.4	5841.2	12086.6	17513.3	17687.6	17261.3	15899.5	9334.4
77.5°	1202.7	1263.6	1556.3	2041.8	2523.9	6560.1	12531.5	12721.0	11993.6	8754.1	3821.4
80°	700.3	768.0	1025.1	1185.8	1158.8	2434.2	6380.8	6703.9	5193.3	2210.9	1072.5
82.5°	389.1	434.7	720.6	722.3	617.4	795.1	2008.0	2101.0	1481.9	891.5	438.1
85°	282.5	319.7	465.2	421.2	296.0	341.7	698.6	732.5	598.8	375.5	142.1
87.5°	99.8	142.1	255.4	203.0	81.2	71.0	201.3	164.1	152.2	104.9	32.1
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°	5587.4	5587.4	5587.4	5587.4	5587.4	5587.4	5587.4	5587.4	5587.4	5587.4	5587.4
2.5°	5617.9	5621.2	5604.3	5573.9	5543.4	5504.5	5460.5	5426.7	5411.5	5409.8	5408.1
5°	5678.8	5687.2	5622.9	5528.2	5423.3	5294.8	5184.8	5059.6	5027.5	4976.7	4992.0
7.5°	5776.9	5771.8	5644.9	5443.6	5198.3	4926.0	4695.9	4562.3	4423.6	4384.7	4386.4
10°	5917.3	5885.1	5644.9	5271.1	4861.7	4457.4	4136.0	3933.0	3823.1	3731.7	3697.9
12.5°	6066.1	5984.9	5590.8	5029.2	4428.7	3933.0	3587.9	3313.9	3242.8	3168.4	3170.1
15°	6208.2	6072.9	5484.2	4689.2	3961.8	3373.1	3038.1	2874.1	2852.1	2860.5	2858.8
17.5°	6336.8	6135.5	5321.8	4310.2	3417.1	2892.7	2715.0	2726.9	2786.1	2828.4	2833.5
20°	6467.1	6172.7	5079.9	3802.8	2902.8	2601.7	2608.5	2701.5	2791.2	2848.7	2857.1
22.5°	6590.5	6189.6	4795.7	3312.2	2530.7	2478.2	2578.0	2677.8	2765.8	2821.6	2830.1
25°	6671.7	6150.7	4393.1	2799.6	2348.0	2434.2	2539.1	2623.7	2698.1	2755.6	2769.2
27.5°	6693.7	6025.5	3894.1	2385.2	2263.4	2391.9	2488.4	2551.0	2608.5	2662.6	2672.8
30°	6681.9	5841.2	3346.0	2141.6	2214.3	2342.9	2417.3	2463.0	2532.4	2574.6	2583.1
32.5°	6663.3	5626.3	2774.3	2011.3	2173.7	2297.2	2341.2	2381.8	2380.1	2363.2	2375.0
35°	6670.1	5369.2	2310.8	1933.5	2138.2	2263.4	2300.6	2249.9	2104.4	2097.6	2090.8
37.5°	6705.6	5115.5	1974.1	1879.4	2119.6	2258.3	2278.6	2045.2	1916.6	1857.4	1842.2
40°	6796.9	4819.4	1752.5	1838.8	2117.9	2297.2	2178.8	1942.0	1695.0	1580.0	1571.5
42.5°	6918.7	4528.5	1617.2	1813.4	2138.2	2356.4	2138.2	1796.5	1527.5	1459.9	1449.7
45°	7099.7	4195.2	1542.8	1801.6	2168.7	2378.4	2124.7	1689.9	1459.9	1405.7	1405.7
47.5°	7304.4	3877.2	1502.2	1793.1	2207.6	2363.2	2004.6	1656.1	1427.7	1434.5	1466.6
50°	7507.4	3601.5	1471.7	1774.5	2241.4	2354.7	1955.5	1654.4	1436.2	1522.5	1580.0
52.5°	7742.5	3406.9	1434.5	1744.1	2241.4	2300.6	1940.3	1688.2	1459.9	1485.2	1510.6
55°	8026.7	3346.0	1387.1	1678.1	2200.8	2165.3	1931.8	1737.3	1476.8	1417.6	1427.7
57.5°	8402.3	3444.1	1341.5	1595.2	2107.8	2024.9	1928.4	1750.8	1437.9	1388.8	1378.7
60°	8838.7	3638.7	1327.9	1510.6	1980.9	1904.8	1908.1	1711.9	1383.7	1333.0	1341.5
62.5°	9144.9	3755.4	1319.5	1446.3	1842.2	1772.8	1859.1	1664.6	1360.1	1316.1	1324.5
65°	9144.9	3613.3	1241.6	1348.2	1662.9	1613.8	1799.9	1605.3	1329.6	1278.9	1270.4
67.5°	8798.1	3198.9	1123.2	1201.0	1464.9	1432.8	1717.0	1534.3	1283.9	1245.0	1224.7
70°	7894.8	2425.8	974.4	1028.5	1214.6	1243.3	1610.4	1437.9	1207.8	1160.5	1130.0
71°	7497.3	2112.8	911.8	940.5	1118.2	1160.5	1559.7	1397.3	1174.0	1106.3	1052.2
72.5°	6731.0	1779.6	817.1	828.9	955.8	1031.9	1453.1	1319.5	1109.7	1013.3	952.4
75°	5113.8	1299.2	658.0	651.3	707.1	818.7	1229.8	1175.7	972.7	842.4	806.9
77.5°	2209.3	707.1	492.3	497.3	480.4	620.8	967.6	1009.9	834.0	685.1	653.0
80°	669.9	407.7	336.6	343.4	321.4	416.1	681.7	791.7	669.9	532.9	488.9
82.5°	343.4	243.6	230.1	226.7	204.7	235.1	412.8	541.3	478.7	333.2	294.3
85°	148.9	130.3	113.3	110.0	96.4	84.6	147.2	270.7	253.7	186.1	177.6
87.5°	37.2	33.8	22.0	20.3	11.8	1.7	0.0	0.0	0.0	0.0	0.0
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)